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ABSTRACT

Enrollment trends in higher education in 10 Western European countries,the United States, and Japan in the 1970s, (and comparative data for East Europe), are examined, along with past and future trends in higher education expenditures in Europe. Enrollments are considered in "Recent Student Flows--Looking at the Seventies" by Ladislav Cerych and Sarah Colton, while expenditures are examined in "Expenditure on Higher Education in Europe, Past Trends and Future Prospects" by Jean-Pierre Jallade. The enrollment data indicate slower or zero growth of traditional students (i.e., young secondary school graduates enrolling in full-time higher education and taking degree courses). This trend has occurred in the West but not in Japan. Information is presented on sectors most affected by the slower growth, trends in female participation, fields of study, level of study, age of students, full- and part-time attendance, social origin of students, college and high school interface, and some trends in seven socialist countries of Eastern Europe. Trends in expenditures are examined for 19 European countries, including six Eastern countries. All Western European countries but one, Switzerland, are characterized by an annual rate of increase in higher education expenditures of 10 percent or more, while most of the Eastern countries have rates of increase of less than 10 percent. Information is presented on expenditures per student in higher education and the following factors affecting expenditure per student: staffing policies, duration of study, and research. Increases appear to reflect either inflation or a growing student population rather than qualitative improvement. (SW)

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STUDENT FLOWS AND EXPENDITURE IN HIGHER EDUCATION 1965 - 1979

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September 1981

P R E F A C E

The report which follows consists of two independent but complementary parts. The first, analysing recent student flows, represents a new and updated version of a study published by the Institute of Education in 1976[1]; the second deals with expenditure in European higher education and appeared originally in the Institute's *European Journal of Education*, Volume 15, No.1, 1980.

The main aims of both sections and, thus, of the volume as a whole are clearly linked to one of the general goals of the Institute : to provide at regular intervals an overall comparative picture of key developments in European higher education. Such a picture - which should not be regarded as a comprehensive statistical survey - necessarily implies some simplifications. The latter, we believe, are unavoidable in any comparative multinational work, but they are also, we would argue, indispensable to all those who wish to analyse the different national trends in more depth and in a broader European and international perspective.

The section devoted to the survey of recent student flows in higher education[2] has been organised partly along the same lines as the Institute's 1976 survey in order to allow the reader to assess the extent to which trends identified at that time were confirmed or reversed in the course of the more recent years. However, some brief but, we believe, important additional considerations were included in the present edition. They concern, in particular, the changing student 'profile' as far as it is reflected in quantifiable data such as the average age of students, their social origin or the relations between numbers of undergraduates and postgraduates.

The section on Eastern Europe is more comprehensive than the one of the 1976 edition in that it covers virtually all socialist countries, although sufficiently detailed breakdowns of the presented data could not be obtained for all of them.

The Western countries covered in the present survey are the following : Austria, Belgium, France, Germany (Federal Republic), Italy, Japan, Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States.

This is, we believe, a sufficiently large sample, albeit not necessarily truly representative because only one Southern European country was included. We hope to fill this gap in the next edition of the survey.

The section on expenditure in higher education - which was not included in the 1976 edition - concerns exclusively Europe, both Western and Eastern. Its aims, limits and sources, are mentioned in the body of the text, while the sources, methodology and classification used in the first section on student flows are described in special annexes attached to this section.

While the present volume was entirely prepared by staff members of the Institute of Education, it would not have been completed without generous contributions and help of various kind received from a number of institutions and persons. We wish to mention in particular :

- the German Federal Ministry of Education and Science,
- the Dutch Ministry of Education,
- the French Ministry of Universities, and
- the Ford Foundation

who have all supported the study financially.

The Swedish National Board of Universities and Colleges, the Norwegian Institute for Studies in Research and Higher Education and the Polish Institute of Science Policy, Technological Progress and Higher Education prepared statistical data on their respective countries or group of countries according to our specifications. Similar help was received from Dr. Pál Tamás of the Institute of Sociology of the Hungarian Academy of Sciences and from Jan Sadlak of the Unesco European Centre for Higher Education.

The Unesco Office of Statistics made available to us an important part of the data used for the survey on expenditure in higher education. Also, different members of the OECD secretariat were most helpful in providing data for the first section of the present volume, thereby allowing its indirect connection, if not consistency, with the pioneering work of this organisation in the field of comparative higher education statistics.

To all of them, we would like to express here our most sincere thanks and gratitude.

Finally, warmest thanks are due to Miss Eliane Godefroy who was responsible for the final presentation of this report, including the typing of its text and complex tables.

Ladislav Cerych
Director
Institute of Education.

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PART ONE

RECENT STUDENT FLOWS : LOOKING AT THE SEVENTIES

by Ladislav Cerych
and Sarah Colton.

I - FINDINGS AND QUESTIONS OF 1976

The main findings of the first Institute of Education report on *Recent Student Flows in Higher Education* published some five years ago can be summed up as follows[3]:

(1) Most of the countries considered have witnessed a marked slowdown in their enrolment growth rates during the early 1970s. This slowdown was usually expected but was in general more important than that which could be concluded from forecasts established in the middle or late 1960s.

However, more recently, i.e. during 1974 and 1975, several countries again seem to have higher growth rates.

Among Western European countries, the Federal Republic of Germany represents an important exception : enrolments still grew very rapidly in the early 1970s and on the contrary tended to stabilise in 1974 and 1975, most probably as a result of restrictive admissions policies (*numerus clausus*).

(2) The relative weight of the university and non-university sectors of higher education have changed significantly as a result of the different growth patterns of these two sectors. In most Western European countries, the slowdown in enrolment growth rates was more marked in university than in non-university higher education. In the 1960s, on the contrary, growth was generally more rapid in the university sector.

(3) Growth rates of female enrolments continued to be, as in the 1960s, generally higher than those of male enrolments, and this consequently led to a further increase in the proportions of women in higher education. However, a certain levelling off was noticeable in countries which had already reached a relatively high female participation ratio (40% and above).

(4) The demographic factor did at first sight contribute to the decreasing growth rate of enrolments. In most countries under review, it indeed appears that the age group corresponding to the higher education population in general (18-23 or 20-25) has decreased between 1970 and 1975 or was increasing at a lower pace than in the 1960s. However, a closer analysis shows that numbers of those among whom most of new entrants into higher education are recruited (single age group 18 or 19 or 20) generally remained stable or even increased between 1970 and 1975. Therefore, the demographic factor cannot be said to have influenced the growth rates of enrolments in a decisive way.

(5) Probably the most important conclusion arising from the above-mentioned report concerns the development of secondary education and its quantitative relations with higher education. Contrary to most expectations, the numbers of secondary school graduates who represented until then by far the most important pool of potential entrants into higher education appeared to be levelling off in the early 1970s, even in those European countries where not more than 20% of the age group was reaching this education level. Moreover, the proportion of those entering higher education among those completing secondary school (transfer coefficient) was, in many countries, declining. The combined effect of these two phenomena was certainly closely related to the declining growth rates in higher education of the early 1970s.

To what extent do the above findings remain valid five years later ?

What was clear in 1976 was the overall decline in growth-rates of higher education in the majority of industrialised countries. What was not clear at that time was whether this decline constituted a temporary phenomenon only or whether it corresponded to a more permanent trend. Equally unclear were both the causes and consequences of this slower development and its implications for qualitative and structural aspects of higher education. Implicitly, at least, the present report wishes to contribute to answering some of these questions most of which reflect a more general interrogation about the nature of what around 1975 became known as 'the steady state' or 'zero growth' in higher education or, more simply as 'the end of the golden age in higher education'.

II - ARE WE REALLY IN A 'STEADY STATE' ?

The general pattern of recent developments

The simplest answer to this question is provided by tables 1 and 2 summarised in tables 3 and 4. In nine out of eleven Western countries under review (including Japan), growth-rates of total enrolments in all higher education were significantly lower after 1975 than in the previous

five year period, and in all countries rates were lower than in the period 65-70. The average rates for these countries dropped from 7.9% before 1970, to 5.6% from 70 to 75 and to 3.2% after 75. This decline is generally confirmed by the data on new entrants into higher education, a more sensitive indicator of recent developments.

Whether this allows us to speak of 'a steady state' in higher education is another question. *Stricto sensu*, certainly not. Even if slower, there is still growth, at least in terms of crude rates. In some countries such as Austria and the Netherlands, the increase of enrolments over the past few years was above 6% p.a. which is far from negligible. On the other hand, when looking at tables 2 and 4 alone, we find that in several cases which became more and more frequent after 1975, the absolute numbers of new students decreased from one year to another, although never continuously over several years. Also, of course, our tables count students of today as if they constituted an homogeneous population with similar characteristics to the one of five or ten years ago. This, we know, is in many countries not true. Sweden might be an extreme case[4)] but possibly indicative of a more general trend. In this country a sharp decline in numbers of new entrants (and not only in their growth rates) had already taken place in the early seventies. After 1974 a reverse trend developed, but it is now established that, since about that time, a large proportion of students entered universities as so-called 'single courses students' with no intention of taking a degree. (In 75/6, for example, of those students entering unrestricted faculties of Liberal Arts and Science, 64% admitted according to 'traditional' access routes and 84% admitted according to the 25/5 rule were not aiming at a full degree[5)]). That means students whom Anglo-Saxon terminology would call 'non-degree credit' or 'extension' students. Thus, even if the extent of this phenomenon for other countries cannot easily be established, there is strong ground to believe that if it were possible to count only traditional, full degree students, the figures would indicate that a trend, not only towards a slower growth of enrolments but often towards a 'steady-state' or 'zero-growth' situation in higher education, was reinforced during the past few years. Clearly, this

still does not allow us to assess how temporary or permanent this trend might be. However, as we shall argue later, this is probably not only an unanswerable question (considering among other things our past experiences with continuously wrong forecasts of future student numbers) but also a wrongly posed question. At least some of the elements of the 'right question' will, we hope, emerge in the following sections.

III - DEVELOPMENT OF ENROLMENT RATES

Higher education and demography

There is another way to look at the general pattern of recent developments of enrolments in higher education other than simply regarding the changes in numbers of students enrolled, namely the analysis of enrolment ratios. In other words, what are the proportions - and changes in these proportions - of young people enrolled in higher education in relation to the whole age-group ?

Tables 11 and 12 provide a summary answer to this question. To a large extent, they also reflect the relation between higher education and demographic developments, i.e., the possible role of the demographic factor in the slow-down of enrolment growth rates. In this respect, it should be recalled that both the OECD report analysing developments until 1967 and the later Institute of Education report of 1976 concluded that the role of the demographic factor was relatively small.

> "In the fifties and sixties only about 20% of the variations in enrolment could be explained on the basis of changes in the size of the relevant age-groups, and there is no reason to believe that the influence of this factor is substantially higher today"*6)*.

In other words, and contrary to the general belief, the post-war baby-boom was not the main force behind the higher education expansion of the sixties.

But neither were declining birth rates an explanation of the slower growth rates in the early seventies. And the same remains true of the more recent developments. When we look at table 11, we can see that, in virtually all countries under review (with the exception of Japan), the age-group corresponding to the large majority (about 70%) of students in higher education continued to increase between 1975 and 1980, sometimes quite substantially (e.g. Austria, Germany, the United Kingdom). However, this situation will change in the 1980s and especially after 1985. We shall argue in our conclusions that this time, the role of the demographic factor might (although, not necessarily) be more important than in the past. At this point, however, we wish to concentrate on the actual enrolment ratios and their developments.

When considering (table 11) the global rates, i.e. enrolments in all higher education in relation to the age-group of the majority of students[7], we find that everywhere (with the exception of USA) these rates were still increasing, albeit at a much slower pace than between 65 and 75. This slower increase corresponds to the continuing but slower growth of student numbers expressed in absolute terms. However, a different finding arises from table 12 which relates numbers of new entrants to a single age-group (corresponding to the average age of newly registered students). Here, the majority of countries seem to have reached a ceiling around 1975 and, subsequently, witnessed a decline or, at best, a relative stagnation of admission rates.

Since figures concerning new entrants are almost always, and by definition, indicative of immediate future developments with regard to the total student population, it can easily be concluded that we are facing, at least for the next few years, a stagnation or even decline of general enrolment ratios. Does this mean, that the so much analysed (or advertised) trends towards 'mass higher education' has been brought to a halt ?

There is no easy answer to this question. On the one hand the already existing rates are quite substantial. Among the 12 Western European countries

considered in table 12, seven are in a situation in which one fifth or more of the young generation enters higher education of some form or another. In four of them the ratio is close to, or even above, 30%. Whether or not these percentages authorise the use of the term 'mass higher education' is, we suggest, a matter for personal appreciation. But there can be no doubt that we are in a fundamentally different situation, (even if there were to be no more growth in the future), than in the 1960s when in many European countries not much more than 10% of the age-group was entering higher education.

On the other hand, the differences between countries and especially between USA and Japan on the one hand, and Western Europe on the other, remain considerable. The narrowing of the gap between the different enrolment ratios does not seem to happen because the stagnation of these ratios takes place irrespective of levels which they already reached.

Moreover, these levels are to some extent misleading. We have already mentioned, and we shall see below in more detail, that the characteristics of the present student population have changed considerably and, especially, that the proportions of those enrolled in view of 'partial higher education' only, ('single course students') have considerably increased. Thus it must be assumed that the proportion of the age-group corresponding to the traditional definition of higher education students (namely those intending to acquire a full degree) is not only much lower than the proportions presented in tables 11 and 12 but in many cases probably far away from a level which would reflect 'a mass higher education' state.

This becomes more obvious when looking at table 13 which relates the single age-group of 24 years to the number of degrees awarded, i.e., to the number of those who completed higher education (of university level). Most of Western Europe is still well below 10%, and in several countries not much more than 5% of the age-group was awarded (in 1976/77) a first level university degree.

From this point of view, therefore, we can easily state that the general slowing down, and even stagnation, in the growth of enrolments takes place at a point still very distant from a true 'mass higher education' situation.

But of course 'mass higher education' might mean precisely many forms of teaching and study which do not lead to traditional university degrees - in which case obviously table 13 is not relevant.

IV - SECTORS MOST AFFECTED BY THE SLOWER GROWTH

Changes in the institutional structures of higher education

One of the key problems to which both policy makers and researchers have devoted great attention since the sixties is the development of a non-university sector of higher (or post-secondary) education which in many countries already had a relatively long tradition (e.g. *Ingenieurschulen* and later *Fachhochschulen* in Germany, *Further Education* in the United Kingdom, *Community Colleges* in the USA, etc.), while in others it was almost non-existent or very small up to the sixties (e.g., Austria, Italy, Sweden). The development of this sector corresponded to a variety of motives : a wish for greater diversification of higher education ; the desire to take away part of the pressure from universities ; an adaptation of the system to labour market needs, etc. In some cases the concepts and goals of an alternative form of higher education were explicitly formulated and pursued.

We have seen[8)] that in the early seventies the relative weight of the non-university sector seemed to have been increasing, contrary to what was happening in the sixties when, despite all efforts and declared policies, growth in the majority of countries continued to be most rapid in the traditional university sector. This development is not confirmed

by the analysis of most recent data, at least, not in the sense that we could speak of a general (international) trend towards an increased importance of non-university higher education. When considering table 5, we can see that in about half of the countries under review the proportion of student enrolments in universities has remained constant or increased slightly since about 1974, while the contrary has happened in the other half. The differences over the past five years are, in any case, relatively small, and if any general conclusion can be drawn at this point, it would probably be one pointing towards a relative stability in the distributions between university and non-university enrolments. In other words, the overall slower growth has, on the average, not affected significantly, one sector more than the other. The same finding arises from table 19 which shows the development of student numbers in some of the newly created (mostly in the sixties) institutions of higher education. Compared to 1965 or even 1970, their growth is, of course, impressive but this is quite natural since many of them started from zero. However, this is much less the case when looking at the most recent developments. When considering the enrolments of these new institutions as a percentage of overall higher education enrolments, we find that with the exception of the UK *Polytechnics* and of the American *Community Colleges*[9], all of the new institutions continue to represent a rather small part of the system, sometimes contrary to original objectives according to which they were expected to become a quantitatively very significant alternative form of higher education (e.g., some 30% of total enrolments in the French *IUTs*).

A comparative analysis of the development of different sectors of higher education is, and has been for many years, a rather difficult, if not artificial exercise. Already a major OECD report published more than 10 years ago stated on this subject[10]:

> "A clear-cut distinction between university and non-university type higher education is often difficult to establish in a single country and, even more so, internationally. What is considered of university type in one country might be viewed as of non-university type in another, and *vice versa*.
>
> ...
>
> For the future, and in some case even presently, the distinction between university and non-university higher education in many

> countries tends to be more and more blurred and may eventually disappear. This is, or will be, due mainly to profound structural changes in the system leading to an increased mobility and transferability of students between different types of higher education institutions and courses".

Yet, with the exception of Sweden where since the promulgation of the 1977 reform there has been no formal distinction between university and non-university higher education, we cannot speak of a trend towards a comprehensive university or a comprehensive system of higher education. The only other serious attempt in this direction - the German *Gesamthochschule* - did not develop beyond the stage of a rather isolated experiment. A juxtaposition of various institutional types (universities, technical colleges, teacher training establishments, etc.) remains the key characteristic of almost all higher education systems. In this sense, therefore, a statistical survey differentiated according to university and other types of higher education continues to be significant.

But we have to be very cautious in interpreting these statistics particularly with regard to one category of institution, usually the most important one, namely the universities. These institutions, for a number of reasons, now cover an increasing range of courses and clienteles which the existing statistical apparatus does not reflect : from younger students aiming at a full academic degree, to those looking for a more vocationally oriented and possibly shorter education, and including the so-called 'single course' (extension) students, many of whom are adults.

Thus, our conclusion about the relative stability of higher education structures - as emerging from table 5 - should be completed ; this stability concerns essentially 'the institutional maps' (or 'institutional structures') of higher education ; on the contrary some profound changes obviously took place with regard to internal structures of one of the most important components of the system, namely universities.

V - TRENDS IN FEMALE PARTICIPATION

A continuous growth in the proportion of women among the student population - both in the university and non-university sectors - is very definitely common to all countries covered by the present survey, a trend indicated clearly in tables 7 and 8. The implication is that the growth rates in enrolments among women were much higher than the corresponding rates for men. In fact, during the first half of the seventies the annual growth rate of student enrolments was everywhere - with the exception of the United Kingdom - above 7% p.a., and after 1975 it was still, on the average, almost 6%.

In all the countries under review, women represent above 35% of new entrants in higher education, probably above 40% if data for 1981 were available. A few countries are getting close to 50% (Austria, Norway, France, USA) and one (Sweden) has reached almost 60%.

There are still a few countries where female enrolments in universities account for 30% or less, but even countries where this is the case or where female participation in higher education was for a long time rather low (the Netherlands, Switzerland, Japan, and the United Kingdom), the development of the last years has implied a certain catching-up with countries more advanced in this respect.

It will be recalled that the 1976 report predicted a certain levelling-off in the growth of female participation in countries which had passed the 40% mark. Later data do not confirm this levelling-off or any kind of 'natural ceiling' of female participation in higher education. The case of Sweden is significant in this respect but, may be even more surprising is the case of Austria, where, within a decade, the proportion of women among new entrants into all higher education grew from less than 30, to 50%.

VI - DISTRIBUTION OF STUDENTS BY FIELD OF STUDY

Needless to stress that both rapid expansion and declining growth of enrolments affect unequally different fields of study. As a result, the respective distributions of students (expressed in percentages) change quite substantially from one period to another. The big expansion period of the late 50's and of the first half of the 60's was, from an international point of view, marked by five such changes[11].

i) substantial decrease in the percentage of students enrolled in law and in medicine ;

ii) slight decrease in the percentage of students in technology ;

iii) slight increase of students in pure science ;

iv) increase of students in social sciences ;

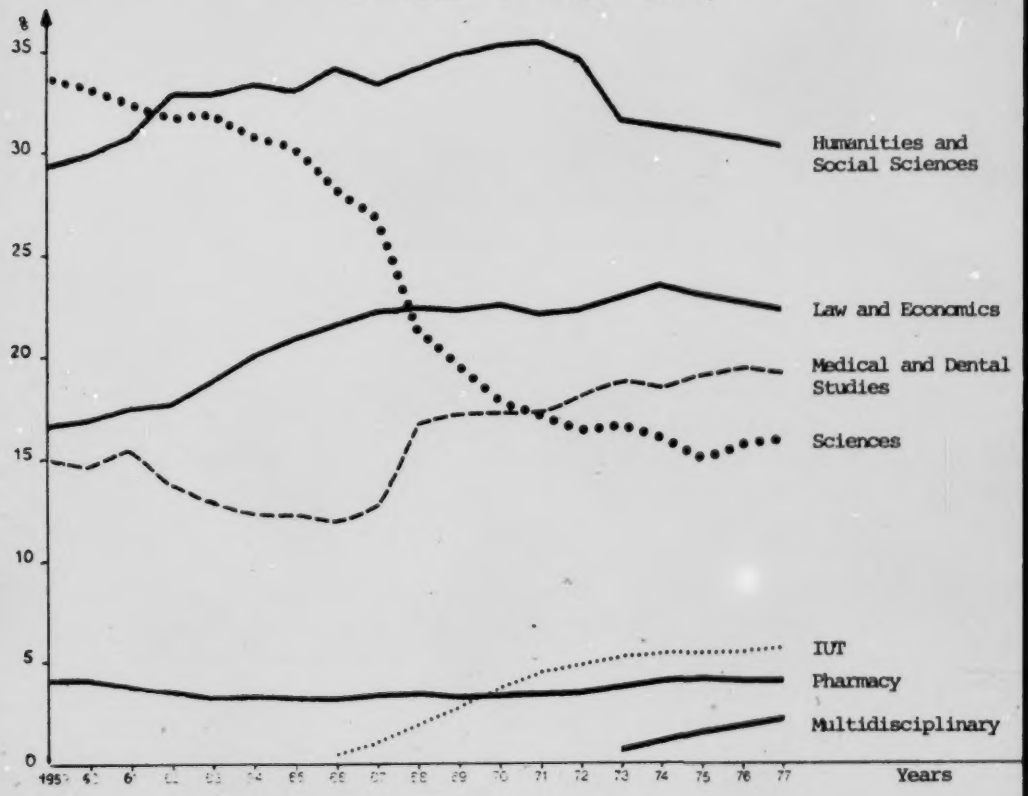
v) heavy increase of students in humanities.

At the end of the sixties and in the early seventies, several of these trends were reversed and, in particular, medical sciences and law registered considerable growth rates in the majority of the countries. On the contrary, the expansion of enrolments in humanities and social sciences slowed while the decline in the proportion of technology students continued or was even reinforced.

Since 1974 or 1975, the trend is not clear or, more exactly, there is no general pattern of development which would apply to the majority of countries, as there was in the previous periods. Thus, for example, the proportion of medical students has, in the past few years, decreased in four countries, increased in three and remained almost constant in six. In humanities, we observe three sharp increases and two marked declines, and stability for all other countries. In general, it can probably be said that the changes in the student distribution during the more recent years are relatively small. The graph below, which shows the development in

France is, to some extent, representative of developments in other countries. What is striking here are the radical shifts taking place in the sixties and even early seventies as compared to the almost parallel development of the different subject curves since about 1973/74.

FRANCE : DISTRIBUTION OF UNIVERSITY STUDENTS BY FIELD OF STUDY (in %)



Source : Service des Etudes Informatiques et Statistiques (SEIS). Ministère de l'Education Nationale. "L'enseignement supérieur en France. Etude statistique et évolution de 1959-1960 à 1977-1978". Etudes et documents 80-2. Paris, 1980, p.92.

This stability is of course not necessarily the result of a stability in the student demand. In many cases, and especially in medical studies, a policy of strict *numerus clausus* prevailed, keeping the numbers of student places constant, and since overall growth of enrolments was very small, there was simply no room for any major changes in the distribution of student by field of study.

In many ways, this situation is exactly the opposite of the one prevailing in the 1960s. At that time, the already often quoted OECD report[12] concluded that higher education systems have generally shown a great resistance to policy incentives aiming at changing the distribution of students by field of study. Indeed, in spite of numerous measures favouring science and technology studies (e.g., through various student aid schemes and/or simply by providing more facilities in these areas), by far the biggest growth rates could be observed in humanities and social sciences. Today, on the contrary, appropriate policy measures seem to have a much greater impact on actual developments. Hence, a hypothesis might be formulated according to which central or institutional policies towards a specific orientation of the system are substantially more effective in a period of slower or no growth than in a period of rapid expansion of enrolments.

VII - SOME CHARACTERISTICS OF THE STUDENT POPULATION

We have already pointed to what we believe might be the key question when considering the overall pattern of student flows in higher education and their slower growth or even 'zero growth' ; which students are we talking about ? Their distribution among different institutions, by sex or by field of study gave us a first indication. A few other indicators should now be examined :

a. *The changing age structure*

Table 18 provides an overall picture for seven countries, In six of them, the proportion of students above 25 and even above 30 years of

age has significantly increased, and in some cases, this proportion is now very high : 57% are over the age of 25 in Sweden and almost 40% in Switzerland.

There is no easy explanation to this aging of the student population and, undoubtedly, several factors are involved, some arising from deliberate policies, others more spontaneous, and often considered to be undesirable.

The Swedish situation, for example, results, to a large extent, from the new admission procedures and, in particular, from the 25/4 rule which favours entry into universities of students with work experience. In highly selective fields of study, such as medicine and teacher training, the average age of new entrants was about 30 years in 1977[13]. The length of work experience in 1978 of more than half of the new entrants to medical and paramedical education (52.8% of men and 53.8% of women) was more than 4 years (as shown below)[14].

SWEDEN :
NEW ENTRANTS TO MEDICAL AND PARAMEDICAL EDUCATION BY LENGTH OF WORK EXPERIENCE (in % of new entrants)

	Men	Women
No work experience or less than 15 months	16.5	21.8
15 months to 2 years	10.5	8.8
2-4 years	21.6	15.4
More than 4 years	52.8	53.8
TOTAL	100.0	100.0

Up to a certain point, it could be (and indeed was) argued that the increase of the average student age corresponded to the objective of life-long or recurrent education, as well as to the goal of equalisation of educational opportunity (especially with regard to the so-called

bridging of the generation gap). Many Swedish observers now seem to feel that the trend went too far and, indeed, measures were introduced in 1980 with the intention of increasing the proportion of young students entering universities directly from secondary school.

The average age increase of students in other countries is usually less deliberate than in Sweden and results most often from the extension of the average duration of studies. Already in the 1960s, it was obvious that the difference between the theoretical and actual duration of studies was, in general, quite important[15] and in many countries attempts were made, if not to shorten the theoretical duration (i.e. the minimum prescribed one), at least to narrow the gap between the average theoretical and actual length of studies (e.g. by not allowing more than one or two repeats in the required examinations). Few, if any of these measures were effective, for which there are several possible explanations : in general, students and student unions were hostile to these measures ; short cycle higher education did not become as attractive as intended or expected ; new two-year degrees created in order to allow an interruption or termination of studies after two or three years (e.g., French *DEUG* or British *Diploma of Higher Education*), became mere intermediary degrees. Finally, and probably most important, the worsened economic situation and the fear of graduate unemployment played clearly in favour of extending the duration of studies by acquiring an additional degree and/or specialisation.

The increase in the average students' age seems to be a rather general phenomenon, but there are some important deviations from this trend : some 80 to 85% of students enrolled in Belgian and British universities are still younger than 25 ; yet, there is no reason to believe that the above mentioned factors acting towards an extension of the average age did not operate in these countries as much as in others. What, then, explains such deviations ?

It is not possible to answer this question within the present survey, but it does, we believe, point towards one significant conclusion to

which we shall direct our final remarks : contrary to the period of the fifties and sixties, it becomes increasingly difficult to identify trends truly common to all or a majority of countries. In other words, there is a greater diversity of developments according to the different national contexts.

b. *Undergraduates and postgraduates*

Ten to fifteen years ago it was very natural and logical to expect that numbers of post-graduate students would grow inevitably as fast and probably faster than those of undergraduates. The argument was simple and straightforward :

> "It is, in fact, likely that with the increase in enrolments in university education, the social benefit which was expected from a first-level degree is slowly decreasing, Studies have confirmed that the private rate of return decreases as the number of these degrees increases. Obviously this fact, which is not independent of the supply and demand for these degrees on the labour market, tends to encourage the individual to acquire a higher-level degree"*16)*.

Statistical evidence fully supported this argument. In almost all Western countries the number of higher degrees awarded (masters, doctorates, etc.) - and thus implicitly of post-graduate students - grew much more rapidly than the number of first degrees (e.g., B.A., B.Sc., *licence*, etc.).

Table 17 shows that this trend did not continue. Since 1970, four of the six countries under review have maintained the proportion between postgraduates and undergraduates, in one country the relative weight of the former diminished, and in the last country, it increased.

Several factors contributed to this reversal*17)*. Firstly, in many countries, post-graduate studies were affected by budget cuts more directly and more immediately than any other sectors of higher education*18)*. As a result, access to post-graduate studies became more selective and more difficult in several instances.

But we can also speculate that the argument of the sixties, i.e., the search for an increased relative advantage through the obtention of an additional and/or higher degree ceased to be operative, either because of some fundamental psycho-sociological reasons (growing resistance towards a prolonged stay in formal education) and/or, more simply, because the additional or higher degrees are less valued in the tight labour market.

Finally, the lesser propensity of students to enter post-graduate studies is also a natural consequence of the changing characteristics of the student population and in particular, of its increased age as well as of its changing study objectives : clearly, a more adult person, probably with family obligations, has greater difficulties than does a young student to extend his or her studies beyond the first degree. *A fortiori*, post-graduate studies are almost by definition excluded for somebody who entered university as a 'single course student'.

It is therefore not an accident that Sweden - where the average student age increased most, and where, at the same time, the phenomenon of 'the single course student' is most developed - has also registered the most significant drop in the proportion of post-graduate students.

c. *Full-time and part-time students*

International data under this heading are very scarce. The reason is simple. In most European countries, no distinction is made between part-time and full-time students - either in statistical terms or in any formal or administrative way. Part-time students, or more exactly, students who study and have at the same time a part-time or full-time job do exist, of course, and various sample surveys have shown the increasing importance of the phenomenon - especially in certain fields such as social sciences and humanities, and in certain countries such as Italy and France.

As many as 59.9% of French students in Humanities and Social Sciences

are employed at least 'part-time from time to time' *(étudiants exerçant au moins, de façon irrégulière, un emploi à temps partiel)*[19].

In certain fields such as medicine or engineering, this is, of course, almost impossible. Similarly, it seems that in certain countries such as Germany, it is very difficult and relatively rare to study and simultaneously be gainfully employed.

Developments in the two countries for which we have reliable statistical data - UK and USA - are, with one exception, not particularly surprising. In both cases, we see a significant growth of part-time enrolments (table 16) which we would argue, had to be expected, considering the increasing average age of the student population and, in general, the trend away from elite higher education (and possibly also, the changing attitudes of the young generations, their desire for independance, etc.). The exception here is the numbers of part-time under-graduate students in British universities which, in fact, have decreased substantially over the past ten years.

The explanation probably lies in the rather liberal student aid system which allows students to study in a university without having a job at the same time. Also, Britain has a highly developed system of part-time studies in institutions other than universities (the *Open University* and the whole *Further Education* sector) so that anybody who wants to study part-time - or cannot do otherwise - will almost automatically enrol in one of these institutions rather than in a university.

d. *Social origin*

A rather straightforward conclusion can be drawn when looking at recent developments of the social structure of the student population in different countries : all of the four cases for which we have gathered data (see table 15) show clearly that since the early or middle

seventies, the proportion of students from lower social strata no longer increases as it did so rapidly almost everywhere in the course of the sixties. In fact, in some cases it decreases. The development in France in this respect is very significant as reflected both in table 19 and in the longer series of data below* concerning a single social category, namely workers and agricultural workers[20]:

1959/60	4.4
1964/65	9.1
1969/70	14.8
1971/72	15.6
1973/74	13.1
1975/76	12.9
1977/78	13.3

There are several explanations for this general trend reversal (common to countries as different as Sweden and the USA), which certainly was not expected in the late sixties. Most probably, the worsened economic situation played a key role in that it affected more rapidly and more immediately the lower social strata both in their restricted capacity to afford higher education studies for their children and in their perception of reduced advantages derived from higher education (fear of graduate unemployment).

However, we would argue that this factor alone (in fact a set of connected factors, some of them economic, some sociological and even psycho-sociological) cannot entirely explain the end of the growth, much less the decline, in the proportion of students from lower social strata. Most probably, the problem of a certain more or less temporary ceiling arises as well. Such a ceiling is due mainly to the social structure of the secondary school population and to the link between secondary and higher education.

Taking again the example of France, we find that in 1978 the proportion of students from workers' and agricultural workers' families among

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* The data represent percentages of students from workers' and agricultural workers' families in total enrolments of French universities.

secondary school-leavers (*bacheliers*) was 19.3% as against 13.8% in universities. However, since workers' sons and daughters transfer less easily from secondary to higher education (49.8% as against 86.4% for children of the upper strata), the pool of potential candidates for entry into universities from workers families is almost exhausted. The same finding can be made when we consider the social structure of secondary school-leavers according to type of leaving examination. In those used most frequently by French students entering universities (*Baccalauréat A, B, C, D*), workers' children represent 15.1%, thus rather close to the figure of their representation in universities (13.3%). In other words, any substantial increase of the percentage of students from lower strata in higher education depends from a certain point onward not only on social equalisation policies in higher education, such as student aid programmes, but also on a previous increase of the students from the same strata among secondary school-leavers and/or the entry into higher education of more students without complete secondary education, among whom, presumably, lower social strata will be more heavily represented. We believe that this point was reached in many European countries and further social equalisation will therefore result more and more from developments at the secondary level and/or from changes in admission conditions to higher education. The effects of the latter should soon be discernable in Sweden following the introduction of the 25/5 admission rule in all higher education in 1977/78 (these effects cannot be identified in table 19 which provides for Sweden data up to 1976/77 only).

VIII - SECONDARY AND HIGHER EDUCATION INTERFACE

Both the OECD survey of 1971 and the Institute of Education report of 1976 have shown the importance and impact of the development of secondary education on the growth of higher education enrolments. In the first instance, it was obvious that the rapid growth of these enrolments was, to a large extent, preceeded if not determined by the equally rapid growth of numbers

of secondary school leavers and the increase of their proportion transferring to higher education. In the second case, exactly the opposite happened (see p.4 above) : the number of secondary school graduates was levelling off and the transfer coefficients were declining which could easily be related to declining growth rates in higher education enrolments of the early seventies.

Since 1975, trends are not very clear (see table 9). Among the 12 countries under review, numbers of secondary school graduates continued to grow in seven cases, albeit with the exception of Germany and the Netherlands, at a relatively lower rate ; in three cases, these numbers remained more or less stable, and in one, they decreased.

As far as the transfer coefficients during the same period are concerned, they seem in general to be stable or decreasing. However, it becomes more and more difficult to establish the correct rates because we do not dispose of sufficient data concerning the average length of the period between secondary school graduations and entry into higher education. Table 19 provides a rough approximation of the overall trends[21]. In all cases but two, the decline of the ratio between secondary school-leavers and new entrants from 1970 or 1975 to approximately 1978 is quite significant, the exception being Japan and the Netherlands, and to some extent the USA.

It is interesting to note that the decrease of the transition coefficient is particularly marked in countries where it was traditionally high, such as France and Germany. In both cases, the real transition rates were around 90% in the course of the 1960s[22]. The latest available French figure (for 1976/77) is 58.2% for all secondary school-leavers irrespective of the type of *baccalauréat*, and 65 to 71% for those with the *baccalauréat* examinations used traditionally for entry into university (A, B, C and D)[23].

The German development is not less significant. According to a survey made regularly since 1972, the percentage of secondary school-leavers

(*Abiturienten*) having expressed their intention to continue their studies at the higher education level was dropping regularly as follows[24]:

	Wishing to continue their studies	Undecided	Decided not to continue their studies
1972	89.7	6.2	4.1
1973	88.4	7.0	4.6
1974	84.6	9.3	6.0
1975	78.8	12.4	8.8
1976	75.3	15.4	9.3
1977	72.7	16.9	10.3
1978	69.3	18.4	12.3
1979	67.4	21.6	11.0

The rather ambiguous findings arising from tables 9 and 10 lead us to the following conclusion : it is no longer possible to attribute to the development of secondary education the same determining impact (positive or negative) on the quantitative development of higher education as was the case in the early and even middle seventies. Since, overall, the development of higher education after 1975 was marked by declining if not negative growth rates and since, during approximately the same period, numbers of secondary school graduates and the ratios of their transfer to higher education developed much more irregularly (from country to country), obviously other factors are equally or more important as explanations of trends at the higher education level.

This also confirms a hypothesis formulated in a recent OECD report[25] according to which we are entering a period of growing disconnection between secondary and higher education, the main factors behind it being the decreasing transfer coefficients of recent secondary school-leavers and increasing numbers of adults - with or without completed secondary education - among new entrants into universities.

We have already seen that in some countries, this disconnection results at least partly, from deliberate policies which make access to higher education more difficult for young secondary school-leavers and easier for adults. In others, however, the disconnection might be quasi 'spontaneous', resulting from changing attitudes towards education and/or, of course, from the economic situation.

IX - HOW DIFFERENT IS EASTERN EUROPE ?

In this section we shall examine briefly if, and to what extent, trends among the seven socialist countries of Eastern Europe offer major similarities (or, on the contrary, differences) to those identified for the Western countries surveyed in the present report. In other words, we do not aim at an analysis of Eastern European developments *per se* but merely at a general comparative picture, proceeding along a similar set of sub-headings as those used for the analysis of trends in the West.

a. *General patterns* *(tables 20, 21 and 22)*

Four out of the seven Eastern European countries have a significantly slower enrolment growth-rate after 1975 than from 1970 to 1975, two have a faster growth and one, a relative stability.

Overall, the trend towards a slower growth of enrolments is certainly equally, or even more pronounced in Eastern Europe than in the West. The average growth rate, considering total enrolments, went down from 3.1% p.a. for the period 1970-75 to 1.5% for the years after 1975. The trend is even clearer when looking at numbers of new entrants. Here the average went down from 3.9% to -1.1%, and four of the seven countries have not only declining growth rates but declining absolute numbers of new entrants. Only Czechoslovakia seems to be a clear exception : the enrolment growth-rates have been accelerating since 1973. To a lesser extent this is also the case in Romania and it is interesting to note that both countries - contrary to the others - had negative growth rates in the sixties.

The similarity of the general pattern between East and West is thus obvious. But it is clearly impossible to assume that the immediate causes are also similar. Enrolments, and especially numbers of new entrants in all socialist countries are, to a large extent, controlled

by policy makers through more or less imperative planning devices. Thus, the decline of enrolments or of their growth-rates in Eastern Europe is, to a large extent (although not completely), deliberate whereas in the West it results from a complex interaction of a large number of quasi autonomous forces[26].

The interesting question, which cannot be discussed in the framework of the present report, would be what exactly, in the different socialist countries, motivated the policy makers towards slower or even negative enrolment growth rates ? It might very well be that some of the factors which operated in the West were also present here.

b. *Enrolment rates (table 25)*

Available data confirm and reinforce the general findings above. Among the seven countries, four have gone through a marked, sometimes quite drastic, decline of the proportions of the age-groups participating in higher education since 1970 or 1975 ; in one (again Czechoslovakia) this proportion has risen and in two, it remained more or less constant. Here too, therefore, we have great similarities with developments in the West but clearly, demographic developments played a much greater role, although in a different sense. For example, the age-group 20-24 doubled in the USSR between 1965 and 1977, and in Hungary between 1970 and 1977, which certainly has contributed to the drop in enrolment ratios (since the number of student places was not or could not be raised correspondingly).

Overall, Eastern Europe rates are significantly lower (except for the USSR) than those of Western Europe. The contrary, however, is true when we consider degrees awarded. Here the Eastern European figures are generally much higher than the Western ones,although in this respect too, the rates are stabilised or declining (table 26). But the comparison is not very meaningful since definitions and statistical

calculations are too different from case to case. Yet in both instances we can draw the same conclusion : the ratios stopped growing, often rather far from the true 'mass higher education' levels which were expected by many, ten years ago.

c. *Female participation (table 23)*

The high participation rates of women in higher education of Eastern European countries are well known and it seems that for the majority of them the trend is continuing. As in Western countries, we cannot speak of any kind of 'natural ceiling' (e.g., 50%) beyond which the growth would automatically slow down or stop. Romania might be, at least, a temporary exception in this respect but we cannot establish why this should be so.

d. *Distribution of students by field of study (table 28)*

Developments in the three countries for which we have gathered data here do not allow us to identify any common trend. This is not surprising since such distributions (contrary to those in the Western countries) are largely determined by manpower planning objectives which obviously differ from country to country and from period to period. It is, however, interesting to note that in countries which have reached a relatively advanced stage of industrial and economic development, such as Hungary and the German Democratic Republic, the proportion of students in technological fields (generally very high compared to the West) is declining, while the relative importance of those in humanities and social sciences is increasing.

e. *Part-time students (table 27)*

Large numbers of part-time (evening and correspondence) students constituted for many years, a very distinctive feature of Eastern European higher education systems. In some countries it is, in fact,

justifiable to speak of a particular sector of higher education which especially in the earlier periods, enrolled up to 50% of students But as early as the beginning of the 70's it was apparent that the relative importance of this sector was declining in several of the socialist countries[27] or, more exactly that the growth of full-time day students was significantly faster than those enrolled in evening and correspondence courses. As table 27 shows, this trend has continued into the middle and later 70's which is in clear contrast to trends we have identified for Western countries where part-time studies - to the extent that they can be ascertained - were gaining in relative importance. The reasons of this difference between Western and Eastern European developments cannot be investigated here but they do pose an interesting question as to the emerging or changing nature of the two types of higher education systems : are we in the West witnessing a certain evolution towards objectives achieved in the East a decade or two ago, (i.e. a system taking increasing care of employed people, adults and those not necessarily aspiring to a full degree), while in the East the trend is reversed ? Or have the Western countries reached a new stage of higher education development characterised by its highly differentiated functions and clientele, while Eastern Europe returns to more homogeneous if not more traditional patterns ?

f. *Age and social origin of students* *(tables 30 and 31)*

In this respect data between Western and Eastern Europe are probably less comparable than in any other area. As far as age is concerned, older and adult students are concentrated in the evening and correspondence ('extra mural') sector while regular full-time day students are and remain predominantly those under 25 years. Table 30, concerning Hungary only, is significant in this respect. Not more than 6% of the students are older than 25. Since, as seen above, the proportion of part-time students in Eastern Europe (comprising most of the older students) seems to be decreasing , it can easily be concluded

that the overall average age (considering the total of the student population) is also decreasing - contrary to what is happening in Western Europe. However, much more detailed data would be required to substantiate fully this conclusion in respect to which, the same question as the one concluding our preceeding sections might be posed.

With regard to the social origin of Eastern European students, the trend seems, on the contrary, to be similar to that in the West. This applies, at least, to the two countries presented in table 31. Since about 1976 the proportion of students of working class origin has not increased significantly, although, of course, the levels reached[28)] are substantially higher than in the West. We have reasons to believe that the situation is similar in other socialist countries and also, that one of the factors of the stagnation is identical to the factor identified for the West (see p.22) : the proportion of students of working class origin in higher education is now close to the percentage of these students among secondary school-leavers - secondary school-leavers being, by far, the most important intake of higher education.

To sum up, there are clearly several important similarities in the development of higher education in the Western and Eastern European countries, in particular those concerning the slower overall growth, the growth of female participation, a stagnation in participation rates and of the distribution of students by social origin. There are, also, some marked differences, the most important of which seem to be the developments related to the relative weights of traditional (young full-time) and 'non traditional' (part-time adult) students.

X - CONCLUSIONS

We have recalled at the beginning of this report that when the Institute of Education's first survey on Recent Student Flows was published (in 1976) it was difficult to predict whether the decline of growth rates in student numbers was a purely temporary phenomenon or a more permanent trend. At that time, the latest available figures (1974 to 1976) for a few countries (e.g. the Netherlands, France, Sweden and the United Kingdom) were, indeed, showing that growth-rates were again increasing. Data gathered in the present new version of the Survey do not confirm this up-turn. Instead, they point, at first sight at least, towards the continuation of the slower growth rates if not towards the 'steady state' identified in the early 70's. This is especially true if we consider the so-called 'traditional students',i.e. young secondary school-leavers enrolling in full-time higher education and taking full-degree courses. In respect to this category alone, we can probably speak not only of a slow-growth but of a 'negative growth' situation which has been in existence for at least five years (varying from country to country) and which can be expected to last for several years to come because of the combined effect of three factors :

(a) demographic developments which in most countries imply a more or less pronounced decline in the relevant age groups ;

(b) policies adopted in several countries which favour access to higher education for adults and those with work experience ;

(c) the decreased propensity of secondary school-leavers to enter higher education immediately or shortly after their graduation[29]. Probably, none of these factors alone would suffice to influence decisively the future development. Thus, as already mentioned, and as past experience shows (see p.6), the demographic factor by itself has never been really decisive in determining higher education enrolments. Its role will possibly be much more important in the forthcoming decade because it will be acting in combination with the two other factors.

It is needless to stress that this combination is not prevailing, and will not prevail, in all countries. Japan, for example, has an almost complete opposite demographic development than most Western European countries ; it does not have a strong policy favouring access to higher education of adults to the detriment of young school-leavers ; nor has the propensity of the latter to transfer immediately to some form of post-secondary education significantly decreased. Therefore, our forecast of a zero or negative growth concerning the category of traditional student enrolments does not apply to Japan as it might not apply to few other countries both in Western and Eastern Europe.

However, much more important, this forecast - let us repeat - applies to the enrolments of traditional students only, not to higher education as a whole. In this respect, and in spite of the generally slower growth rates of the past years, we do not believe that it would be justified to conclude that the slower or zero growth situation will necessarily remain a permanent feature of the 80's or even the 90's in the same way as high growth was characteristic of the 50's and 60's. The new clientele, particularly adults, part-time and 'single course' students, might indeed compensate, or more than compensate, for the declining numbers of young full-time students. This, as the present report shows, was already happening in several countries during the late 70's and such a development might very well accelerate in the near future. Whether this is desirable or not is, of course, a crucial question, the answer to which, however, is beyond the scope of the present report. It would in any case lead (and perhaps already does) to a profound transformation of the existing higher education systems. This transformation would be the emergence, within each country, of two parallel sub-systems : one, following the relatively traditional norms of academic excellence, selectivity and meritocracy (with a very slow growth) and a second, with a multiplicity of functions, clienteles, contents, methods and locations.

If this hypothesis should prove to be correct, the key policy problem

will not be the determination of the desirable or probable overall enrolments in higher education nor the question concerning their growth or decline, but rather the nature of the relationship between the two sub-systems and the development of each : their relative isolation or, on the contrary, their interpenetration. Analytically, this policy problem requires different statistical data from those readily available today. We hope that the present survey provides some incentives towards the elaboration and gathering of such data.

Notes and references

1) Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, ICED, New York/Institute of Education, Paris, 1976.

2) The Institute of Education publishes every two years another survey on recent developments oriented towards more qualitative and structural aspects of European higher education. The first of those appeared in Paedagogica Europaea XIII/1978-1, the second in the European Journal of Education, Vol.15, No.1, Carfax Publishing Company, Oxford, 1980.

3) We quote here, in abridged form, from a summary of this report, published in Paedagogica Europaea XII/1977-2, Westermann, Braunschweig, 1977, pp.11-20.

4) Mainly as a result of its 1977 overall reform of higher education and of the previously introduced 25/4 admission scheme.

5) Abrahamsson, K., Kim, L. & Rubenson, K., The Value of Work Experience in Higher Education. Stockholm Institute of Education, Department of Educational Research, Reports on Education and Psychology, No.2, 1980, figure 4:4, p.58.

6) Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit., p.161.

7) Different from country to country according to the average age of entrance and average duration of studies.

8) See point 2) page 3 above.

9) Which are, of course, much older than all the others and therefore do not really belong to table 19.

10) OECD, Development of Higher Education 1950-1967, Statistical Survey, Paris, 1970, p.11.

11) As recorded in OECD, Development of Higher Education 1950-1967, Analytical Report, Paris, 1971, p.226.

12) Ibid. p.227.

13) Abrahamsson, K., Kim, L. & Rubenson, K., The Value of Work Experience in Higher Education, op.cit. pp.67-92.

14) Ibid.

15) See OECD, Development of Higher Education 1950-1967, Analytical Report, op.cit., p.184.

16) Ibid., p.171.

17) However, this reversal is not very pronounced : when looking at table 6, we find that in several countries the number of higher degrees awarded during the past few years grew still more rapidly than the number of first degrees.

18) The exact opposite took place in the 1960s : financial resources allocated to post-graduate studies in the form of increased student aid, research credits, etc. was growing more rapidly than in almost any other sector of higher education.

19) Reported in Jarousse, J.-P., Evolution du comportement des étudiants, Centre de Recherche pour l'Etude et l'Observation des Conditions de Vie, Paris, Déc.80, p.9.

20) According to : "L'enseignement supérieur en France, Etude statistique et évolution de 1959-1960 à 1977-1978". Etudes et documents 80-2, Service des Etudes Informatiques et Statistiques (SEIS) du Ministère de l'Education, Paris, 1980, p.118.

21) Figures of this table should in no way be considered as 'transfer coefficients', but merely, as the title of the table states, as relations between numbers of new entrants into higher education to numbers of qualified secondary school-leavers within a single year. This figure is by definition higher - often above 100% - because the numerator of the ratio comprises adults entering higher education and secondary school-leavers entering higher education one or more years after their secondary graduation. Nevertheless in the long run, the ratios of this table also reflect the development of the transfer coefficients.

22) OECD, Development of Higher Education 1950-1967, Analytical Report, op.cit., p.108.

23) Ministère de l'Education, SEIS, L'enseignement supérieur en France, op.cit., p.63.

24) Statistisches Bundesamt Wiesbaden : Bildung im Zahlenspiegel, Wiesbaden, 1979, p.46.

25) OECD, Access to Higher Education (document prepared for the OECD intergovernmental Conference on Policies for Higher Education in the 1980s), Paris, 1981.

26) In all socialist countries the total number of applicants is much higher (two to three times in Poland, for example) than the number of actual student places and of students admitted (at least in full-time day education).

27) Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit., p.173.

28) But let us stress, again, that the comparability here is rather problematic - only trends, not absolute figures can be compared.

29) The causes of this lower propensity are certainly multiple : economic, changes in values and life-styles, etc.

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TABLES

(Part One : Recent Student Flows)

For sources to different tables, see special section p.97 to 104.

TABLE 1

TOTAL ENROLMENT BY YEAR AND BY TYPE OF HIGHER EDUCATION

(Absolute figures in thousands and annual growth in per cent).

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
AUSTRIA										
All higher education	50.3	62.6	69.1	77.2	83.5	90.7	98.2	105.1	111.3	
Growth rate			10.4	11.7	8.2	8.6	8.3	7.0	5.9	
University-type	48.9	54.9	59.4	66.9	73.6	79.2	86.1	91.6	98.4	
Growth rate			8.2	12.6	10.0	7.6	8.7	6.4	7.4	
Non-university type	1.4	7.7	9.7	10.3	9.9	11.5	12.1	13.5	12.9	
Growth rate			26.0	6.2	-3.9	16.2	5.2	11.6	-4.4	
BELGIUM										
All higher education	84.0	126.9	131.8	141.0	148.6	152.1	158.2	164.4		
Growth rate			3.9	7.0	5.4	2.3	4.0	3.9		
University-type	48.8	75.1	81.0	78.3	79.5	81.0	83.4	86.9	89.3[1]	
Growth rate			7,9	-3.3	1.5	1.9	3.0	4.2	2.8	
Non-university type	35.2	51.8	50.8	62.7	69.1	71.1	74.8	77.5		
Growth rate			-1.9	23.4	10.2	2.9	5.2	3.6		
FRANCE										
All higher education	524.9	809.9	869.4	939.7	945.2	975.1	1015.1	1046.7	1048.2	
Growth rate			7.3	8.1	0.6	3.2	4.1	3.1	0.1	
University-type	434.0	682.6	731.9	791.3	785.6	807.9	840.8	871.3	870.7	
Growth rate			7.2	8.1	-0.7	2.8	4.1	3.6	-0.1	
Non-university type	90.9	127.3	137.5	148.4	159.6	167.2	174.3	175.4	177.5	
Growth rate			8.0	7.9	7.5	4.8	4.2	0.6	1.2	
GERMANY, Fed. Rep. of										
All higher education	344.8	544.6	591.8	649.1	721.2	786.7	836.0	871.9	905.6	945.9
Growth rate			8.7	9.7	11.1	9.1	6.3	4.3	3.9	4.5
University-type	266.1	407.1	461.6	533.5	591.2	641.2	675.3	698.9	724.2	756.9
Growth rate			13.4	5.6	10.8	8.5	5.3	3.5	3.6	4.5
Non-university type	78.7	137.5	130.2	115.6	130.0	145.5	160.7	173.0	181.4	189.0
Growth rate			-5.3	-11.2	12.5	11.9	10.4	7.7	4.9	4.2

(continued)

TABLE 1 *(continued)*	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
ITALY										
All higher education	424.7	709.8	789.7	835.2	879.3	930.2	982.3	1020.7		
Growth rate			11.3	5.8	5.3	5.8	5.6	3.9		
University-type	412.4	694.5	773.2	819.5	862.1	911.0	960.2	995.9	996.2[2)]	
Growth rate			11.3	6.0	5.2	5.7	5.4	3.7	1.3	
Non-university type	12.3	15.2	16.5	15.7	17.2	19.2	22.1	24.8		
Growth rate			8.6	-4.2	9.6	11.6	15.1	12.2		
JAPAN										
All higher education	1078.9	1666.2	1740.4	1812.9	1900.6	1984.5	2076.1	2140.0	2195.7	
Growth rate			4.5	4.2	4.8	4.4	4.6	3.1	2.6	
University-type	925.0	1386.6	1447.3	1505.9	1571.1	1633.9	1702.4	1756.1	1802.2	
Growth rate			4.4	4.0	4.3	4.0	4.2	3.2	2.6	
Non-university type	155.9	279.7	293.0	307.0	329.5	350.6	373.7	383.8	393.5	
Growth rate			4.8	4.8	7.3	6.4	6.6	2.7	2.5	
NETHERLANDS										
All higher education	119.9	177.8	193.4	202.2	212.8	209.9	231.4	247.6	261.2	
Growth rate			8.8	4.6	5.2	-1.4	10.2	7.0	5.5	
University-type	64.4	103.4	112.9	119.0	123.0	112.5	120.2	129.2	137.4	
Growth rate			9.2	5.4	3.4	-8.5	6.8	7.5	6.3	
Non-university type	55.5	74.4	80.6	83.2	89.8	97.4	111.2	118.4	123.8	
Growth rate			8.3	3.2	7.9	8.5	14.2	6.5	4.6	
NORWAY										
All higher education	36.7	51.8	57.4	62.5	67.4	68.3	70.2	70.6	69.8	71.8
Growth rate			8.9	8.7	7.8	1.6	2.5	0.6	-1.1	2.9
University-type	19.5	30.2	32.9	35.4	37.3	39.3	40.8	40.6	39.3	39.5
Growth rate			8.9	7.6	5.4	5.4	3.8	-0.5	-3.2	0.5
Non-university type	17.2	22.6	24.6	27.1	30.1	29.2	29.4	30.0	30.5	32.3
Growth rate			8.8	10.2	11.1	-3.0	0.7	2.0	1.7	7.5

(continued)

TABLE 1 *(continued)*	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
SWEDEN										
University-type	66.4	120.2	116.0	113.7	110.1	108.5	110.0	113.0	3)	3)
Growth rate			-3.5	-2.0	-3.2	-1.4	1.4	2.8		
SWITZERLAND										
All higher education	40.4	49.7	52.1	54.7	55.8	57.7	59.5	61.2	63.2	65.1
Growth rate			4.8	5.0	2.0	3.4	3.1	2.9	3.3	3.0
University type	32.9	42.2	44.6	47.2	48.6	50.7	52.6	54.2	55.9	57.6
Growth rate			5.7	5.8	3.0	4.3	3.7	3.0	3.1	3.0
Non-university type[4]	7.5	7.5	7.5	7.5	7.2	7.0	6.9	7.0	7.3	7.5
Growth rate			0.0	0.0	-4.0	-2.8	-1.4	1.4	4.3	2.7
UNITED KINGDOM[5]										
All higher education	309.4	456.6	473.5	481.9	495.5	497.6	514.8	526.0	529.0[e]	
Growth rate			3.7	1.8	2.8	0.4	3.5	2.2	0.6	
University-type	188.6	274.7	286.3	295.0	302.9	323.1	343.1			
Growth rate			4.2	3.0	2.7	6.7	6.2			
Universities only		235.3	242.6	246.8	251.2	257.7	268.7	279.3	288.1	295.9
Growth rate			3.1	1.7	1.8	2.6	4.3	3.9	3.2	2.7
Non-university type	120.8	181.9	187.2	186.9	192.6	174.5	171.7			
Growth rate			2.9	-0.2	3.0	-9.4	-1.6			
U.S.A.										
All higher education[6]	5967.4	8649.4	9025.0	9297.8	9694.3	10,321.5	11,290.7	11,121.0	11,415.0	11,392.0[7]
Growth rate			4.3	3.0	4.3	6.5	9.4	-1.5	2.6	-0.2
University-type	4791.0	6422.0	6534.0	6526.0	6661.0	6893.0	7289.0	7204.0	7336.0	7327.0[7]
Growth rate			1.7	-0.1	2.1	3.5	5.7	-1.2	1.8	-0.1
Non-university type	1177.0	2227.0	2491.0	2772.0	3034.0	3429.0	4002.0	3917.0	4079.0	4065.0[7]
Growth rate			11.9	11.3	9.5	13.0	16.7	-2.1	4.1	-0.3

Notes : TABLE 1

1) "Nombre total des étudiants et étudiantes de nationalité belge ou étrangère".

2) Universities only; in the preceding years, a few other institutions representing about 1.5% of total enrolment in university-type higher education were included.

3) A reform of Swedish higher education took place in 1977. The new organisation of higher education makes it impossible to distinguish between university-type and non-university type after this reform. Total higher education was 161.6 in 1977 and 170.1 in 1978.

4) "Ecoles Supérieures Techniques" only (part-time and full-time students).

5) Full-time students only.

6) Degree credit and non-degree credit students.

7) United States figures for the year 79/80 are the following :

All higher education	11,669.0	University type	7431.0	Non-university type	4238.0
Growth rate	2.4	Growth rate	1.4	Growth rate	4.3

e) Estimates.

TABLE 2

NEW ENTRANTS BY YEAR AND BY TYPE OF HIGHER EDUCATION

(Absolute figures in thousands and annual growth rates in per cent)

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9	79/80
AUSTRIA											
All higher education	8.7	15.2	16.0	15.7	15.9	16.3	17.9	20.9	21.2		
Growth rate			5.3	-1.9	1.3	2.5	9.8	16.8	1.4		
University-type	8.1	11.3	10.6	11.4	11.4	11.1	12.6	15.2	15.9		
Growth rate			-6.2	7.5	0.0	-2.6	13.5	20.6	4.6		
Non-university type	0.6	3.9	5.4	4.3	4.5	5.2	5.3	5.7	5.3	5.3	
Growth rate			38.5	-20.4	4.7	15.6	1.9	7.5	-7.0	0.0	
BELGIUM											
All higher education	29.2	40.6	43.1	45.3	48.7	50.2					
Growth rate			6.2	5.1	7.5	3.1					
University-type[1]	12.3	17.2	18.6	18.5	18.3	18.5	18.5	20.1	20.6		
Growth rate			8.1	-0.5	-1.1	1.1	0.0	8.6	2.5		
Non-university type	16.9	23.4	24.5	26.8	30.4	31.7					
Growth rate			4.7	9.4	13.4	4.3					
FRANCE											
All higher education	182.8	221.9	227.6	219.8	211.2	220.4	229.2	233.7			
Growth rate			2.6	-3.4	-3.9	4.4	4.0	2.0			
University-type	128.4	168.2	169.9	157.5	141.5	145.5	158.6	158.4	158.5	161.6	158.0
Growth rate			1.0	-7.3	-10.2	2.8	9.0	-0.1	0.1	2.0	-2.2
Non-university type	54.4	53.7	57.7	62.3	69.7	74.9	70.6	75.3			
Growth rate			7.4	8.0	11.9	7.5	-5.7	6.7			
GERMANY, Fed.Rep. of											
All higher education	85.7	129.7	141.7	186.0	194.8	164.6	164.2	168.1	166.2	175.9[2]	
Growth rate			9.3	31.3	4.7	-15.5	-0.2	2.4	-1.1	5.8	
University-type	61.3	85.7	97.6	144.8	152.3	120.9	118.7	119.0	118.6	128.1[2]	
Growth rate			13.9	48.4	5.2	-20.6	-1.8	0.3	0.3	8.0	
Non-university type	24.4	44.0	44.1	41.2	42.5	43.7	45.5	49.1	47.6	47.8[2]	
Growth rate			0.2	-6.6	3.1	2.8	4.1	7.9	-3.1	0.4	

(continued)

TABLE 2 *(continued)*	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9	79/80
ITALY											
All higher education	107.2	197.0	217.3	215.7	216.4	234.1	246.1	245.1			
Growth rate			10.3	-0.7	-0.3	8.2	0.8	-0.4			
University-type	102.9	191.0	211.2	210.2	209.6	226.9	237.9	236.0	228.7	235.5	
Growth rate			10.6	-0.5	-0.3	8.3	4.8	-0.8	-3.4	3.0	
Non-university type	4.3	6.0	6.1	5.5	6.8	7.2	8.2	9.1			
Growth rate			1.7	-9.8	23.6	5.9	13.9	11.0			
JAPAN											
All higher education	333.9	468.1	503.1	527.2	553.9	581.4	608.2	604.3	621.0		
Growth rate			7.5	4.8	5.1	5.0	4.6	-0.6	2.8		
University-type	249.9	333.0	357.8	376.1	389.6	407.5	423.9	420.6	428.4		
Growth rate			7.4	5.1	3.6	4.6	4.0	-0.8	1.9		
Non-university type	83.9	135.1	145.2	151.1	164.4	173.9	184.2	183.7	192.6		
Growth rate			7.5	4.1	8.8	5.8	5.9	-0.3	4.8		
NETHERLANDS											
All higher education	30.2	40.4	45.3			47.7	61.4	59.7			
Growth rate			12.1				28.7	-2.8			
University-type	12.6	18.4	19.3			18.0	18.8	20.3	22.1		
Growth rate			4.9				4.4	8.0	8.9		
Non-university type	17.6	22.0	26.0	30.6	29.6	29.7	42.6	39.4			
Growth rate			18.2	17.7	-3.3	0.3	43.4	-7.5			
NORWAY											
University-type	5.6	8.3	9.2	10.7	10.6	10.8	11.0	10.0	9.3	9.7	
Growth rate			10.8	16.3	-0.9	1.9	1.9	-9.1	-7.0	4.3	

(continued)

TABLE 2 *(continued)*	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9	79/80
SWEDEN											
All higher education		42.0	36.8	37.2	35.7	37.5	40.9	44.9	49.9	46.9	
Growth rate			-12.3	1.1	-4.1	5.2	8.9	10.0	11.0	-6.1	
University-type	17.3	27.6	23.4	22.9	22.2	24.4	27.2	29.1	4)	4)	
Growth rate			-15.1	-2.1	-3.2	10.2	11.2	7.3			
Non-university type[3]		14.4	13.4	14.3	13.5	13.1	13.7	15.8	4)	4)	
Growth rate			-6.9	6.7	-5.6	-3.0	4.6	15.3			
SWITZERLAND											
University-type	-	8.3	8.7	-	-	11.6	11.6	11.2	11.5	11.6	
Growth rate	-	-	4.8	-	-	-	0.0	-3.4	2.7	0.9	
UNITED KINGDOM[5]											
All higher education (excluding Northern Ireland)	111.4[6]	136.0	142.2	142.7	144.4	147.9	154.0	157.3	151.5	153.8	156.4[2]
Growth rate			4.6	0.4	1.2	2.4	4.1	2.1	-3.7	1.5	1.7
Universities only		65.6	67.3	68.1	69.0	72.7	76.8	79.3	82.8	84.9	
Growth rate			2.6	1.2	1.3	5.4	5.6	3.3	4.4	2.5	
Non-university type	51.6	74.4	78.5	78.9	78.4	71.3	71.3				
Growth rate			5.5	0.5	-0.6	-9.1	0.0				
U.S.A.[7]											
All higher education	1642.0[e]	2080.2	2135.9	2175.3	2248.1	2392.9	2543.6	2377.4	2477.9[e]	2442.7[e]	
Growth rate			2.7	1.8	3.3	6.4	6.3	-6.5	4.2	-1.4	
University-type	1082.0[e]	1166.4	1138.4	1073.4	1091.1	1147.2	1183.0	1146.8	1173.5		
Growth rate			-2.4	-5.7	1.6	5.1	3.1	-3.1	2.3		
Non-university type	560.0[e]	913.9	997.5	1097.8	1157.0	1245.7	1360.6	1230.5	1304.3		
Growth rate			9.1	10.1	5.4	7.7	9.2	-9.6	6.0		

Notes : TABLE 2

1) Universities only.

2) Provisional data.

3) Estimates by the Swedish National Central Bureau of Statistics. An overestimation of probably less than 10% is implied.

4) The new organisation of higher education makes it impossible to distinguish between university and non-university education after 1977/78.

5) Full-time students only.

6) 1966/67.

7) Degree-credit and non-degree credit students.

e) Estimates.

TABLE 3

TOTAL ENROLMENT IN HIGHER EDUCATION

(Average annual growth rates by type of higher education in per cent)

	Total higher education			University type			Non-university type		
	65-70	70-75	75-LA	65-70	70-75	75-LA	65-70	70-75	75-LA
Austria	4.5	9.4	6.5[2]	2.3	9.4	6.9[2]	40.6	9.5	3.2[2]
Belgium	8.6	4.5	3.8[1]	9.0	2.1	3.5[2]	8.0	7.6	3.5[1]
France	9.1	4.6	1.6[2]	9.5	4.3	1.8[2]	7.0	6.5	0.9[2]
Germany, Fed.Rep.of	9.6	8.9	4.2[3]	8.9	10.7	3.9[3]	11.8	3.2	5.6[3]
Italy	10.8	6.7	3.9[1]	11.0	6.7	3.7[2]	4.3	7.8	10.9[1]
Japan	9.1	4.5	2.8[2]	8.4	4.2	2.9[2]	12.4	6.0	2.6[2]
Netherlands	8.2	5.4	6.2[2]	9.9	3.1	6.9[2]	6.0	8.4	5.5[2]
Norway	7.1	6.3	0.8[3]	9.1	6.2	-1.1[3]	5.6	5.4	3.2[3]
Switzerland	4.2	3.7	3.0[3]	5.1	4.5	3.1[3]	0.0	-1.7	2.8[3]
United Kingdom	8.1	2.4	1.4[2]	-	2.7[5]	3.3[5][3]	8.5	-1.1	-1.6[1]
United States	7.7	5.5	0.8[4]	6.1	2.6	0.5[4]	14.1	12.4	1.4[4]
Average	7.9	5.6	3.2	7.9	5.1	3.2	10.8	5.8	3.5

Notes : LA : Latest year available.
1) 76 ; 2) 77 ; 3) 78 ; 4) 79 ; 5) Universities only.

TABLE 4

NEW ENTRANTS TO HIGHER EDUCATION

(Average annual growth rates by type of higher education in per cent)

	Total higher education			University type			Non-university type		
	65-70	70-75	75-LA	65-70	70-75	75-LA	65-70	70-75	75-LA
Austria	11.8	-	8.8[2]	6.9	2.2	12.3[2]	45.4	6.3	0.0[2]
Belgium	-	-	-	6.9	1.5	5.5[2]	-	-	-
France	4.0	0.6	2.0[1]	5.5	-1.2	0.0[2]	-0.3	5.6	6.7[1]
Germany, Fed.Rep.of	8.6	4.8	2.3[3]	6.9	6.7	2.6[3]	12.5	0.7	1.7[3]
Italy	12.9	4.6	-0.4[1]	13.2	4.5	-0.3[3]	6.9	6.4	11.0[1]
Japan	7.0	5.4	1.0[2]	5.9	4.9	0.5[2]	10.0	6.4	2.3[2]
Netherlands	6.0	8.7	-2.8[1]	7.9	0.4	8.4[2]	4.6	14.1	-7.5[1]
Norway	-	-	-	8.2	5.8	-4.1[3]	-	-	-
Sweden	-	-0.5	4.7[3]	9.8	-0.3	7.3[1]	-	-1.0	15.3[1]
Switzerland	-	-	-	-	6.9	0.0[3]	-	-	-
United Kingdom	4.1[5]	2.5[5]	0.4[5][4]	-	3.2[6]	3.4[6][3]	7.6	-0.8	-
United States	4.8	4.1	-1.3[3]	1.6	0.3	-0.4[2]	10.3	8.3	-2.1[2]
Average	7.4	3.8	1.6	7.3	2.9	2.9	12.1	5.1	3.4

Notes : LA : Latest year available.
1) 76 ; 2) 77 ; 3) 78 ; 4) 79. 5) Excluding Northern Ireland. 6) Universities only.

TABLE 5

RELATIVE IMPORTANCE OF NON-UNIVERSITY TYPE HIGHER EDUCATION

(Enrolment and new entrants in non-university type as percentage of enrolment and new entrants in all higher education)

	65/6	70/1	74/5	76/7	77/8
AUSTRIA					
New entrants	6.9	25.7	31.9	27.3	25.0
Enrolments	2.8	12.3	12.6	12.8	11.5
BELGIUM					
New entrants	57.9	57.6	63.1	-	-
Enrolments	41.9	40.8	46.7	47.1	-
FRANCE					
New entrants	29.8	24.2	34.0	32.2	-
Enrolments	17.3	15.7	17.1	16.8	16.9
GERMANY, Fed.Rep.of					
New entrants	28.5	33.9	26.5	29.2	28.6
Enrolments	22.8	25.2	18.5	19.8	20.0
JAPAN					
New entrants	25.1	28.9	29.9	30.4	31.0
Enrolments	14.4	16.8	17.7	17.9	17.9
NETHERLANDS					
New entrants	58.3	54.5	62.3	66.0	-
Enrolments	46.3	41.8	46.4	47.8	47.4
NORWAY					
New entrants	n.a.	n.a.	n.a.	n.a.	n.a.
Enrolments	46.9	42.8	42.6	42.5	43.7
SWITZERLAND					
New entrants	n.a.	n.a.	n.a.	n.a.	n.a.
Enrolments	18.6	15.1	12.1	11.4	11.6
UNITED KINGDOM					
New entrants	45.3	47.6	41.3	-	-
Enrolments	39.0	39.8	35.1	47.0	-
UNITED STATES					
New entrants	34.1	43.9	52.1	51.8	56.2
Enrolments	19.7	25.7	33.2	35.2	35.7

TABLE 6

DEGREES AWARDED TO HOME STUDENTS BY YEAR AND BY LEVEL

(Absolute figures in thousands and annual growth rates in per cent)

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8
AUSTRIA									
University first level		2.4	2.5	2.5	2.7	2.9	3.0	3.4	
Growth rate			4.2	0.0	8.0	7.4	3.4	13.3	
Doctorates		2.3	2.1	1.9	2.0	2.1	2.1	2.3	
Growth rate			-8.7	-9.5	5.3	5.0	0.0	9.5	
BELGIUM[1]									
University first level	4.8	7.9	8.7	8.6	9.2	8.4	9.5	9.7	
Growth rate			10.1	-1.1	7.0	-8.7	13.1	2.1	
FRANCE									
University first level	32.9	62.0	67.3	72.5	69.1	68.9	70.7	67.9	78.4
Growth rate			8.5	7.7	-4.6	-0.3	2.5	-4.0	15.5
Doctorates		7.1[2]	8.0[2]	8.7[2]	11.2	12.0	13.9	14.6	15.9
Growth rate			12.7	8.8	28.7	7.5	15.6	4.9	9.3
GERMANY, Fed.Rep.of[1]									
University first level	25.5	30.1	27.9	29.9	32.3	33.6	33.7	36.5	37.5
Growth rate			-7.3	7.2	8.0	4.0	0.3	8.3	2.7
Teacher training[3]	17.1	25.8	26.2	27.1	27.8	30.8	37.8	40.1	
Growth rate			1.6	3.4	2.6	10.8	22.7	6.1	
Doctorates	7.7	11.3	11.4	10.1	10.1	10.7	11.4	11.5	11.3
Growth rate			0.9	-11.4	0.0	5.9	6.5	0.9	-1.7
Below first level	16.2	19.8	20.4	21.0	29.2	30.1	31.9	29.3	33.3
Growth rate			3.0	2.9	39.0	3.1	6.0	-8.2	13.7

(continued)

TABLE 6 *(continued)*	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8
ITALY									
University first level[4)]	28.1	59.5	63.2	60.6	64.1	69.5	70.0	73.2	72.2
Growth rate			6.2	-4.1	5.8	8.4	0.7	4.6	-1.4
JAPAN									
University first level	178.3	272.9	292.9	297.2	300.1	313.1	326.2	339.8	
Growth rate			7.3	1.4	1.0	4.3	4.2	4.2	
Master's	5.9	10.8	11.2	12.6	13.8	13.5	13.3	14.9	
Growth rate			3.7	12.5	9.5	-2.2	-1.5	12.0	
Doctorates	1.7	3.0	3.1	2.8	2.8	2.9	3.1	3.3	
Growth rate			3.3	-9.7	0.0	3.6	6.9	6.5	
Below first level	55.4	117.5	118.4	125.6	130.8	140.9	150.9	160.0	
Growth rate			0.8	6.1	4.1	7.7	7.1	6.0	
NETHERLANDS									
University first level	3.8	7.2	8.1	8.8	9.3		11.9	12.4	12.4
Growth rate			12.5	8.6	5.7		13.0	4.2	0.0
NORWAY									
University first level[5)]				3.07	3.10	3.09	3.30	3.50	3.53
Growth rate					1.0	-0.6	6.4	6.5	1.1
Doctorates and Licentiates				0.14	0.15	0.16	0.17	0.20	0.16
Growth rate					7.2	5.4	7.1	18.0	-21.3
Below first level				7.3	8.4	9.3	8.4	8.9	8.8
Growth rate					14.4	10.9	-9.3	5.1	-0.5

(continued)

TABLE 6 *(continued)*	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8
SWEDEN									
University first level		15.0	15.7	15.5	16.0	13.9	11.0	11.6	
Growth rate			4.7	-1.3	3.2	-13.1	-20.1	5.5	
Doctorates and licentiates		1.14	1.00	0.87	0.76	0.76	0.75	0.74	
Growth rate			-11.9	-12.6	-13.4	0.0	-1.1	-1.1	
Below first level		11.3	12.8	11.9	13.1	13.1	13.1	13.4	
Growth rate			13.2	-7.0	10.1	0.0	0.0	2.3	
SWITZERLAND									
University first level	2.1	3.8	3.6	3.7	3.9	3.9	3.9	4.2	5.2
Growth rate		81.0	-5.3	2.7	5.4	0.0	0.0	7.7	23.8
Doctorates	1.0	1.3	1.4	1.4	1.5	1.5	1.7	1.6	1.6
Growth rate		30.0	7.7	0.0	6.7	0.0	13.3	-5.9	0.0
UNITED KINGDOM									
University first level[6]	38.0[7]	59.9	60.5	63.7	67.7[4]	73.4[4]	76.0[4]		
Growth rate		7.9	0.8	5.3	6.3	8.4	3.5		
Higher degrees		13.3	11.6	13.4	14.3[4]	16.7[4]	17.0[4]		
Growth rate			-13.5	16.5	6.7	16.8	1.8		
Below first level[4]		59.6	59.6	58.2	59.9	61.0	61.9		
Growth rate		10.6	0.0	-2.3	2.9	1.8	1.5		
U.S.A.									
University first level[8]	551.0	877.7	930.7	972.4	999.6	978.8	988.4	1041.8	1028.4[P]
Growth rate			6.0	4.4	2.9	-2.1	0.9	5.5	-1.3
Master's	140.5	230.5	251.6	263.4	277.0	292.5	311.8	322.2	334.1
Growth rate			9.1	4.4	5.3	5.8	6.5	3.2	3.7
Doctorates	18.2	32.1	33.4	34.8	33.8	34.1	34.1	35.3	36.2
Growth rate			4.0	4.2	-2.9	0.9	0.0	3.5	2.5

Notes : TABLE 6

1) Including foreigners.

2) Does not include Law, Economic science, Humanities and Science.

3) Equals number of students who pass final exams successfully.

4) Calendar years. Formula adopted here is : calendar year 70 equals 69/70.

5) Includes only university first type higher level (*candidatus* and *magisterartium*).

6) Does not include teacher-training.

7) 1964/65.

8) Bachelor and first professional.

P) Provisional data.

TABLE 7

PERCENTAGE OF FEMALE STUDENTS

	Year	Total higher education enrolments	University enrolments	New entrants into all higher education
AUSTRIA	65/6	24.3	23.9	29.9
	70/1	28.9	25.0	38.2
	74/5	35.6	32.1	-
	76/7	39.4	35.9	49.3
	77/8	40.4	37.4	50.0
BELGIUM	70/1	-	33.1	-
	74/5	-	36.2	-
	76/7	-	38.3	-
	77/8	-	38.8	-
FRANCE	65/6	40.3	41.4	-
	70/1	37.7	38.8	-
	76/7	43.8	44.2	-
GERMANY, Fed.Rep.of	1965	23.7	28.8	24.7
	1970	30.7	34.5	32.2
	1975	33.7	35.7	36.6
	1977	34.4	35.6	38.8
ITALY	65/6	32.9	-	35.5
	70/1	37.2	-	36.6
	74/5	39.2	-	41.2
	76/7	39.5	-	41.5
	77/8	40.9	-	-
JAPAN	65/6	24.1	16.1	32.4
	70/1	28.0	17.9	36.2
	74/5	31.3	20.6	40.7
	76/7	32.7	21.6	42.1
	77/8	33.0	22.0	42.7
NETHERLANDS	65/6	25.2	18.0	27.2
	70/1	26.3	19.6	29.7
	74/5	30.0	23.1	34.4
	76/7	32.6	26.2	37.4
	77/8	33.5	27.3	-
NORWAY	65/6	38.7	24.6	30.4[1)]
	70/1	36.5	28.5	38.6
	74/5	40.1	34.6	44.4
	76/7	41.9	36.5	47.0
	77/8	43.7	37.2	47.3

(continued)

TABLE 7 *(continued)*

	Year	Total higher education enrolments	University enrolments	New entrants into all higher education
SWITZERLAND	65/6	-	19.9	-[1]
	70/1	-	22.5	29.3
	74/5	-	26.1	33.1
	76/7	27.4[2]	27.9	35.1
	77/8	27.7	29.1	36.8
SWEDEN	70/1	-	-	52.7
	74/5	-	-	55.1
	76/7	-	-	57.2
	77/8	-	-	59.6
UNITED KINGDOM	65/6	38.3	25.6	28.3[1]
	70/1	40.0	28.1	31.1
	74/5	41.8	32.8	35.4
	76/7	41.4	34.1	-
UNITED STATES	65/6	38.9	39.1	42.5
	70/1	41.5	41.5	44.7
	74/5	44.9	44.4	46.9
	76/7	46.8	45.8	46.9

Notes : 1) Universities only.

2) Including non-university sector in broad sense (cf. Table 1, note 1).

TABLE 8

FEMALE ENROLMENT IN HIGHER EDUCATION

(Average annual growth rates by type of higher education in per cent)

	Total higher education			University type			Non-university type		
	65-70	70-75	75-LA	65-70	70-75	75-LA	65-70	70-75	75-LA
Austria	8.2	15.4	10.1[2]	3.2	16.1	12.8[2]	54.5	13.3	0.0[2]
Belgium	10.7	7.5	5.5[1]	12.9	5.3	6.5[1]	9.0	9.2	4.8[1]
France	7.6	7.6	4.2[1]	8.1	7.2	2.6[1]	4.8	9.7	13.8[1]
Germany, Fed.Rep.of	16.9	14.7	5.8[3]	15.8	14.3	5.1[3]	4.8	9.7	-6.4[3]
Italy	13.6	7.7	5.7[1]	13.8	7.6	4.8[2]	4.5	9.1	-
Japan	12.4	7.4	4.2[2]	10.7	7.8	4.7[2]	14.6	6.9	3.6[2]
Netherlands	9.1	9.5	9.0[2]	11.8	8.1	11.8[2]	7.3	10.6	7.0[2]
Norway	5.9	9.0	3.3[3]	12.4	11.3	0.9[3]	3.4	5.5	5.4[3]
Switzerland	-	-	-	7.9	8.2	7.3[3]	-	-	-
United Kingdom	9.0	3.2	-	9.9	8.1	-	8.4	-1.1	-
United States	8.8	7.3	3.8[4]	7.3	4.2	2.5[4]	16.2	14.9	6.0[4]
Average	10.2	8.9	5.7	10.3	8.9	5.9	12.8	8.8	4.3

Notes : LA : Latest year available.
1) 76 ; 2) 77 ; 3) 78 ; 4) 79.

TABLE 9

QUALIFIED SECONDARY SCHOOL-LEAVERS BY YEAR AND TYPE OF SECONDARY EDUCATION[1]

(Absolute figures in thousands and annual growth rates in per cent)

	64/5	69/70	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
AUSTRIA[2]											
Total		14.5	16.8	15.9	17.1	19.1	20.8	21.8	22.6	23.7	
Growth rate			15.9	-5.4	7.5	11.7	8.9	4.8	3.7	4.9	
Unlimited access			12.6	11.4	12.6	14.0	14.9	15.2	14.9	15.7	
Growth rate				-9.5	10.5	11.1	6.4	2.0	-2.0	5.4	
Limited access			4.2	4.4	4.5	5.1	5.8	6.7	7.7	8.0	
Growth rate				4.8	2.3	13.3	13.7	15.5	14.9	3.9	
BELGIUM											
Total	41.3			49.0	50.4	52.1	53.6	50.6	49.2		
Growth rate					2.9	3.4	2.9	-5.6	-2.8		
Unlimited access	19.5	24.4		30.1	29.9	29.2	34.6	34.3	31.7		
Growth rate					-0.7	-2.3	18.5	-0.9	-7.6		
Limited access	21.8			18.9	20.5	22.9	19.0	16.3	17.5		
Growth rate					8.5	11.7	-17.0	-14.2	7.4		
FRANCE											
Total	96.9	177.8	188.1	194.3	202.1	209.1	216.0	215.3	223.0	231.7	232.5
Growth rate			5.8	3.3	4.0	3.5	3.3	-0.3	3.6	3.9	0.3
Unlimited access	96.9	138.7	143.7	147.4	150.3	153.5	153.7	151.2	152.6	155.4	154.4
Growth rate			3.6	2.6	2.0	2.1	0.1	-1.6	0.9	1.8	-0.6
Limited access	-	39.1	44.4	46.9	51.8	55.6	62.3	64.1	70.4	76.3	78.1
Growth rate			13.6	5.6	10.4	7.3	12.1	2.9	9.8	8.4	2.4
GERMANY											
Total			87.9	102.5	125.3	144.6	163.8	169.5	189.1	205.1	
Growth rate				16.6	22.2	15.4	13.3	3.5	11.6	8.5	
Unlimited access			87.9	90.2	98.3	106.7	121.9	125.6	143.7	157.8	
Growth rate				2.7	9.0	8.5	14.2	3.0	14.4	9.8	
Limited access			-	12.4	27.0	37.9	42.0	44.0	45.4	47.4	
Growth rate					117.7	40.4	10.8	4.8	3.2	4.4	

(continued)

TABLE 9 *(continued)*	64/5	69/70	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
ITALY											
Total	161.8	221.0	229.8	252.9	255.0	261.5	275.0	295.0[3]	297.7		
Growth rate				10.1	0.8	2.5	5.2	7.3	0.9		
Unlimited Access			229.8	252.9	255.0	261.5	275.0	295.0[3]	297.7		
Growth rate				10.1	0.8	2.5	5.2	7.3	0.9		
JAPAN											
Total	1160.1	1403.0	1359.7	1318.5	1325.8	1336.8	1327.4	1325.1	1403.3		
Growth rate			-3.1	-3.0	0.6	0.8	-0.7	-0.2	5.9		
NETHERLANDS											
Total	22.7	36.8	41.0	46.0	41.2	49.0	54.6		66.2	71.5	
Growth rate			11.4	12.2	-10.4	18.9	11.4			8.0	
Unlimited access				26.4	13.7	19.6	22.5		24.7	27.8	
Growth rate					-48.1	43.1	14.8			12.6	
Limited Access				19.7	27.5	29.4	32.1		40.5	43.7	
Growth rate					39.6	6.9	9.2			7.9	
NORWAY											
Total		13.4	15.0	-	16.4	17.2	18.5	18.8	19.6		
Growth rate			11.6		4.6[4]	5.2	7.3	1.6	4.3		
SWEDEN											
Total	24.3[5]		30.7	29.3	27.2	26.0	23.9	23.3	35.3[6]	35.9[6]	
Growth rate				-4.6	-7.1	-4.3	-8.0	-2.8	51.7	1.6	
SWITZERLAND											
Total		5.7	6.0	6.3	6.4	7.3	7.9	7.9	8.6	9.0	
Growth rate			5.3	5.0	1.6	14.1	8.2	-	8.9	4.7	
UNITED KINGDOM											
Total			99.0	101.0	101.2[7]	103.1	103.6	109.2	113.3[8]	116.2[8]	
Growth rate				2.0	0.2	1.9	0.5	5.4	3.8	2.6	
U.S.A.											
Total	2665.0	2896.0	2944.0	3008.0	3043.0	3081.0	3140.0	3153.0	3154.0[8]	3160.0[8]	
Growth rate					1.2	1.2	1.9	0.4	0.0	0.2	

Notes : TABLE 9

1) Qualified School-Leavers : The category, "Qualified School-Leavers" is one of the most difficult to define. In different countries, access to higher education is controlled in a variety of ways, and numerous changes have been made during the period covered in this study. In some cases, anyone who has completed upper secondary school is qualified to enter some form of higher education. However, in most countries, open access is still the exception rather than the rule.

For these reasons, the definition found in the OECD Classification of Education Systems based on Type A secondary education is most appropriate for use in this study. Thus "Qualified School Leavers" are defined as : those pupils who have completed "...general or technical education /which/ offers pupils, upon completion, a relatively good chance of continuing their studies in a higher education establishment".

In most countries, this category can be subdivided into 1) "Unlimited Access" those pupils who have completed studies which, in principle, give them access to all branches and institutions of higher education, and, 2) "Limited Access" those pupils who have completed studies or passed exams which give access to some but not all branches or institutions of higher education.

The data in this study have been collected with the help of country experts and based upon the above definitions.

2) Pupils in final year of institutes concerned.

3) Includes *Istituti d'Arte* (total of 8,492 students in 1974/75).

4) Average annual growth rate 70/71 and 72/73.

5) 1965/66.

6) Prior to 1976/77, only 3 and 4-year streams of secondary education were included; since 1976/77 also 2-year streams have been considered as qualifying for higher education. In 1976/77 the number of school-leavers of 2-year streams was 12,500.

7) Because of a rise in school-leaving age, the total number of leavers from session 1973/73 was much reduced.

8) Provisional data.

9) High school diplomas only.

TABLE 10

RELATION OF NUMBER OF NEW ENTRANTS TO NUMBER OF QUALIFIED SECONDARY SCHOOL-LEAVERS

(in %)

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
Austria		104.8	95.2	98.7	93.0	85.3	86.1	95.9	93.8	
Belgium	70.7			92.4	96.6	96.4				
France	188.6	124.8	121.0	113.1	104.5	105.4	106.1	108.5		
Germany, Fed. Rep. of			161.2	181.5	155.5	113.8	100.2	99.2	87.9	85.8
Italy	66.3	89.1	94.6	85.3	84.9	89.5	89.5	83.0		
Japan	28.8	33.4	37.0	40.0	41.8	43.5	45.8	45.6	44.3	
Netherlands	133.0	109.8	110.5			97.3	112.5			
Sweden		135.4	120.0	127.1	131.2	144.3	170.7	193.2	141.4	130.0
Switzerland[1)]		145.6	145.0			158.9	146.8	141.7	133.7	133.3
United Kingdom			166.6	167.5	168.4	167.4				
United States	61.6	71.8	72.6	72.3	73.9	77.7	81.0	75.4	78.6	77.3

Notes : 1) New entrants to institutions of university-type only.

TABLE 11

APPROXIMATE ENROLMENT RATES[1)]

Country and age-group	Year	Population of age-group[2)]		Enrolment in all higher education in relation to age-group (in %)
		in 000	*1970=100*	
AUSTRIA	65	712	90.1	7.1
	70	790	100.0	7.9
	75	638	80.8	15.4
19-24	77	671	84.9	16.6
	80	737	93.3	
	85	793	100.4	
	90	724	91.6	
BELGIUM[4)]	65	793	89.9	6.2
	70	882	100.0	8.5
	75	893	101.2	9.3
18-23	77	914	103.6	9.8
	80	934	105.9	
	85	927	105.1	
	90	849	96.3	
FRANCE	65	4,078	79.6	12.9
	70	5,125	100.0	15.8
	75	4,867	95.0	20.9
18-23	77	4,881	95.2	21.5
	80	4,948	96.5	
	85	5,150	100.5	
	90	5,128	100.1	
GERMANY, Fed.Rep.of	65	5,306	119.6	6.5
	70	4,438	100.0	12.3
	75	4,840	109.1	17.3
20-25	77	4,979	112.2	18.2
	80	5,393	121.5	
	85	6,164	138.9	
	90	5,797	130.6	
ITALY[4)]	65	6,463	98.0	6.4
	70	6,596	100.0	10.5
	75	6,079	92.2	15.8
19-25	77	6,052	91.8	16.5
	80	6,233	94.5	
	85	6,723	101.9	
	90	6,593	100.0	
JAPAN	65	10,690	89.2	10.1
	70	11,989	100.0	13.9
	75	8,724	72.8	23.8
18-22	77	8,365	69.8	26.2
	80	8,208	68.5	
	85	8,598	71.7	
	90	9,841	82.1	

(continued)

TABLE 11 *(continued)*

Country and age-group	Year	Population of age-group[2]		Enrolment in all higher education in relation to age-group (in %)
		in 000	*1970=100*	
NETHERLANDS	65	1,622	94.0	7.4
	70	1,725	100.0	10.3
	75	1,610	93.3	14.4
18-24	77	1,630	94.5	16.0
	80	1,677	97.2	
	85	1,718	99.6	
	90	1,644	95.3	
NORWAY	65	280.3	85.1	13.1
	70	329.4	100.0	15.7
	75	312.4	94.8	22.5
20-24	77	316.6	96.1	22.0
	80	315.2	95.7	
	85	320.1	97.2	
	90	333.6	101.3	
SWEDEN[4]	65	608.7	97.4	10.9
	70	625	100.0	19.2
	75	542	86.7	20.3
20-24	77	537	85.9	21.0[3]
	80	528	84.5	
	85	571	91.4	
	90	575	92.0	
SWITZERLAND	65	512.8	100.4	7.9
	70	511	100.0	9.7
	75	514.2	100.6	11.6
18-23	77	532.1	104.1	11.9
	80	572.8	112.1	
	85	656	128.4	
	90	601.8	117.8	
UNITED KINGDOM[5]	65	4,465	107.1	-
	70	4,168	100.0	5.6
	75	4,064	97.5	6.6
18-22	77	4,214	101.1	6.8
	80	4,587	110.1	
	85	4,944	118.6	
	90	4,507	108.1	
UNITED STATES	65	18,294	82.9	32.6
	70	22,057	100.0	39.2
	75	24,373	110.5	46.3
18-23	77	25,070	113.7	45.5
	80	25,463	115.4	
	85	23,179	105.1	
	90	21,168	96.0	

Notes : TABLE 11

1) Approximate Enrolment Rates involve both the actual age distribution of the student population and the length of study in a given country. This rate is the relation between total enrolments and the population of the age-group to which 70 to 80% of the students belong. The age-group, therefore may vary from country to country.

2) Because statistics are not available which furnish the various age break-downs necessary for the different countries, the numbers used here are approximations deriving from unpublished OECD statistics ("Policies for Post-Secondary Education, Development of Post Secondary Education in OECD Countries since 1965" - SME/ET/79.21 pp. 77-80) which list, by country, the numbers of live births between the years 1940 and 1976. Since allowances must be made for mortality rates, migrations, etc., these figures do no more than provide a basis for international comparisons which must be considered, at best, extremely approximative.

3) 1976.

4) University type only.

5) Universities only.

TABLE 12

RATES OF ADMISSION[1] TO HIGHER EDUCATION

Country and average age of admission	Year	Average population[2] of single age-group	Number of new entrants	New entrants in relation to age-group
		(in 000)	*(in 000)*	*(in %)*
AUSTRIA	65	114	8.7	7.6
	70	105	15.2	14.5
	75	115	17.9	15.6
18-20	77	121	21.2	17.5
	80	131		
	85	129		
	90	108		
BELGIUM	65	145	29.2	20.1
	70	145	40.6	28.0
	75	151	-	
18-20	77	155	-	
	80	156		
	85	151		
	90	140		
FRANCE	65	780	182.8	23.4
	70	837	221.9	26.5
	75	810	229.2	28.3
18-20	77	819	233.7[3]	28.5[3]
	80	830		
	85	857		
	90	870		
GERMANY, Fed.Rep.of	65			
	70	817	129.7	15.9
	75	811	164.2	20.2
20-22	77	856	166.2	19.4
	80	942		
	85	1,054		
	90	895		
ITALY	65	890	107.2	12.0
	70	905	197.0	21.8
	75	871	246.1	28.3
19-21	77	874	245.1[3]	28.0[3]
	80	913		
	85	995		
	90	913		
JAPAN	65	2,310	333.9	14.5
	70	2,098	468.1	22.3
	75	1,641	608.2	37.1
18-19	77	1,664	621.0	37.3
	80	1,626		
	85	1,668		
	90	2,041		

(continued)

TABLE 12 *(continued)*

Country and average age of admission	Year	Average population of single age-group	Number of new entrants	New entrants in relation to age-group
		(in 000)	*(in 000)*	*(in %)*
NETHERLANDS	65	252		
	70	230	30.2	12.0
	75	235	40.4	17.6
17-20	77	238	61.6	26.2
	80	246	59.7[3]	25.1[3]
	85	204		
	90	219		
NORWAY[4]	65	64.9		
	70	62.0	5.6	8.6
	75	63.5	8.3	13.4
19-21	77	63.4	11.0	17.3
	80	62.5	9.3	14.7
	85	66.3		
	90	60.0		
SWEDEN	65	134		
	70	113	-	
	75	108	42.0	37.1
19-20	77	107	40.9	37.8
	80	103	49.9	46.6
	85	123		
	90	112		
SWITZERLAND[4]	65	88.4		
	70	82.7		
	75	89.4	8.3	10.0
18-19	77	92.2	11.6	13.0
	80	101.6	11.5	12.5
	85	108.5		
	90	93.8		
UNITED KINGDOM	65	990		
	70	795	113.9	11.5
	75	838	156.3	19.7
18-19	77	875	180.6	21.6
	80	960		
	85	971		
	90	868		
UNITED STATES	65	3,717		
	70	3,868	1,642.0	44.2
	75	4,280	2,080.2	53.8
18	77	4,262	2,543.6	59.4
	80	4,167	2,477.9	58.1
	85	3,521		
	90	3,258		

Notes : TABLE 12

1) Rates of admission indicate the proportion of a given population which enters higher education at a given time. In order to account for differences in age of admission to higher education, calculations are made for each country on the basis of the average of the population of the single years of age from which more than 75% of new entrants come.

2) For explanation of population figures, see note 2), table 11.

3) 1976.

4) University type only.

TABLE 13

NUMBER OF DEGREES AWARDED[1)]
IN RELATION TO POPULATION AGED 24 (IN %)[2)]

	65/6	70/1	76/7
Austria	-	2.2	3.3
Belgium	4.8	5.2	6.6
France	6.6	7.3	8.3
Germany, Fed.Rep.of	-	4.1	4.6
Italy	3.0	5.7	8.6
Japan	7.9	14.2	16.7
Netherlands	2.1	2.5	5.3
Sweden	-	11.3	10.5
Switzerland	2.9	4.3	5.0
United States	21.9	26.6	26.9

Notes : 1) First level degrees only.
2) For explanation of population figures, see note (2), Table 11.

TABLE 14

DISTRIBUTION OF NEW ENTRANTS BY MAJOR FIELD OF STUDY
(in % of all new entrants into university higher education)

	65	70	75	LA
AUSTRIA[5)6)]				2)
Humanities	20.5	22.9	29.0	28.9
Social Science	18.6	16.2	12.0	12.6
Medical Science[7)]	12.8	13.0	17.0	15.5
Pure Science	7.2	11.0	10.8	8.5
Technology	11.5	15.4	9.7	8.1
BELGIUM				3)
Humanities	27.8	13.2	16.6	19.7
Social Science	18.0	19.8	13.5	13.1
Medical Science	19.5	15.4	16.8	17.2
Pure Science	14.0	12.0	14.0	13.4
Technology	9.1	7.4	6.9	6.2
FRANCE				3)
Humanities	35.1	40.5	36.3	36.6
Social Science	20.0	25.0	12.5	10.3
Medical Science	15.0	18.1	18.7	18.9
Pure Science	29.8	16.5	15.0	16.9
Technology	-	-	-	-
GERMANY, Fed.Rep.of[8)]				2)
Humanities	23.6	21.1	25.1	24.3
Social Science	15.4	12.2	13.0	13.9
Medical Science	16.4	11.0	7.4	8.6
Pure Science	14.2	16.0	18.1	17.6
Technology	12.9	8.4	9.3	9.8
ITALY				3)
Humanities[17)]	30.8	28.8	21.6	9)
Social Science	25.3	17.5	17.2	9)
Medical Science	8.2	13.6	16.9	9)
Pure Science	13.5	12.3	10.6	9)
Technology	11.8	10.8	10.3	9)
JAPAN[8)]				2)
Humanities	12.7	12.7	13.1	13.2
Social Science[15)]	44.7	43.6	43.4	43.2
Medical Science	5.1	4.9	5.6	5.9
Pure Science	3.0	3.1	3.0	3.0
Technology[16)]	19.5	21.1	20.2	19.8

(continued)

TABLE 14 *(continued)*

	65	70	75	LA
NETHERLANDS			10)	3)
Humanities	17.5	21.7	31.4	18.8
Social Science	21.4	19.6	12.8	25.2
Medical Science	14.3	10.9	10.1	7.8
Pure Science	11.9	11.4	11.7	14.7
Technology	16.7	14.7	10.6	13.8
NORWAY				3)
Humanities	33.7	14.2	14.0	10.8
Social Science	11.2	10.3	8.2	8.6
Medical Science	6.7	5.6	4.6	4.4
Pure Science	16.9	8.4	8.0	7.3
Technology	10.3	8.0	7.2	8.7
SWEDEN				1)
Humanities	30.9	24.8	23.5	22.1
Social Science	33.9	44.7	45.5	47.5
Medical Science	4.5	3.0	4.0	3.9
Pure Science	16.8	13.1	10.3	10.0
Technology	8.4	7.2	9.0	9.4
SWITZERLAND	11)			3)
Humanities	25.9	25.2	29.1	32.9
Social Science	20.6	21.1	17.3	14.5
Medical Science	15.3	15.7	15.6	14.2
Pure Science	16.2	14.4	14.7	14.1
Technology[12)]	13.6	15.2	11.3	12.1
UNITED KINGDOM			10)	3)
Humanities[13)]	14.7	12.4	11.8	14.2
Social Science	22.9	21.2	24.6	25.7
Medical Science	8.3	8.8	9.3	7.5
Pure Science	27.8	26.3	23.3	24.2
Technology	17.0	15.8	14.1	15.6
UNITED STATES[14)]				1)[P]
Humanities	13.2	12.7	10.9	10.6
Social Science	31.2	34.7	33.7	33.5
Medical Science	3.2	3.0	6.7	6.9
Pure Science	12.8	11.5	11.3	11.4
Technology	7.7	6.7	5.7	6.2

Notes : TABLE 14

1) 76 ; 2) 77 , 3) 78 ; 4) 79.
5) Winter semester.
6) Full-time ; excluding foreigners.
7) Only medicine.
8) Total enrolment.
9) No comparable statistics for 76 or 77.
10) 74-75.
11) 67.
12) Including "Architecture, Aménagement et Mathématiques Spéciales".
13) Including Fine Arts and Education.
14) Bachelor and first professional degree.
15) Including Home Economics.
16) Engineering.
17) Including Education.

LA : Latest year available.

P : Preliminary data.

TABLE 15

SOCIAL ORIGIN OF STUDENTS

(in % of total enrolment)

	1965	1970	1975	LA
FRANCE	5)	6)	7)	4)
Total enrolment in universities				
- Free professions, executives, heads of /industry, commerce	67.3	61.0	59.8	63.6
- Employees	9.3	9.2	10.7	8.1
- Workers, service personnel, agric.workers	18.9	20.1	17.3	14.0
Others	4.5	9.7	12.2	14.3
Total	100.0	100.0	100.0	100.0
GERMANY, Fed. Rep. of				1)
New entrants in universities				
- Self-employed and civil servants	59.5	51.7	45.4	43.8
- White collar workers	31.8	34.0	36.7	37.0
- Manual workers	6.5	12.0	15.0	16.0
Others	2.2	2.3	2.9	3.2
Total	100.0	100.0	100.0	100.0
New entrants in non-university type higher education				
- Self-employed and civil servants	45.7		36.2	35.0
- White collar workers	33.3		32.8	33.2
- Manual workers	17.5		27.6	28.0
Others	3.5		3.4	3.8
Total	100.0		100.0	100.0

(continued)

TABLE 15 *(continued)*

	1965	1970		1975	LA
SWEDEN	8)	9)	6)		1)
New entrants in universities					
- Professions (academic degree), merchants,	34.0	25.3	25.4		25.1
- Clerks /tradesmen, executives	11.6	11.1	10.7		9.8
- Farmers	17.3	18.8	18.9		18.9
Others	37.1	44.8	45.0		46.2
Total	100.0	100.0	100.0		100.0
U.S.A.	5)				1)
Enrolment in all higher education by % of income brackets 10)					
Less than $5,000	20.0	20.8		23.5	22.4
$5,000 - 9,999	37.9	36.6		35.1	36.3
$10,000 - 14,999	51.9	48.4		45.4	47.5
$15,000 and up	68.3	61.7		59.6	58.2

Notes : 1) 76/7 ; 2) 77/8 ; 3) 78/9 ; 4) 79/80 ; 5) 67/8 ; 6) 74/5 ; 7) 77/8 ; 8) 66/7 ; 9) 71/2. 10) In 1967 dollars.

A) Free professions, higher and middle level executives, heads of industry and commerce.

B) Employees.

C) Workers, service personnel, agricultural workers.

I) Professions that demand academic degree ; managers ; merchants, tradesmen, executives.

II) Clerks.

III) Farmers and workers.

LA : Latest year available.

TABLE 16

PERCENTAGE OF PART-TIME STUDENTS IN TOTAL ENROLMENT

	65	70	75	LA
UNITED KINGDOM				
. All students in universities[5]				
- Male and female	7.0	9.0	8.9	8.9[2]
- Female	5.4	7.6	7.2	-
. Undergraduates in universities[5]				
- Male and female	3.2	2.7	1.7	1.6[1]
- Female	3.2	3.7	2.3	2.3[1]
. Post-graduates in universities[5]				
- Male and female	22.3	29.7	30.8	31.5[1]
- Female	17.8	24.8	28.0	28.7[1]
. Advanced courses in further education				
- Male and female	68.4	55.4	35.7	37.1[2]
- Female	31.4	32.1	-	-
UNITED STATES				
. Degree credit and non-degree credit students				
- Male and female	-	32.2	38.8	40.8[4]
- Female	-	34.6	41.9	44.2[4]
. Degree credit students only				
- Male and female	29.3	30.7	36.7	37.6[2]
- Female	30.8	33.3	40.3	41.3[2]

Notes : LA : Latest year available.
1) 76 ; 2) 77 ; 3) 78 ; 4) 79. 5) Excluding Open University.

TABLE 17 PERCENTAGE OF UNDERGRADUATE AND POST-GRADUATE STUDENTS

	1965	1970	1975	LA
FRANCE[5]				
Undergraduates[6]	86.2	82.3	77.9	82.2[4]
Post-graduates[7]	13.8	17.7	22.1	17.8[4]
JAPAN				
Undergraduates	54.1	59.5	73.4	72.1[3]
Post-graduates	45.9	40.5	26.6	27.9[3]
NORWAY[5]				
Undergraduates		82.8	81.8	77.7[3]
Post-graduates		17.2	18.2	22.3[3]
SWEDEN[5]				
Undergraduates	91.4	91.0	88.7	92.1[2]
Post-graduates	8.6	9.0	11.3	7.9[2]
UNITED KINGDOM[5][8]	9)			10)
Undergraduates	82.8	81.8	81.2	81.8[2]
Post-graduates	17.1	18.2	18.8	18.2[2]
U.S.A.[11]				
Undergraduates	87.4	87.0	87.0	86.0[4]p)
Post-graduates	12.6	13.0	13.0	14.0[4]p)

Notes : 1) 76 ; 2) 77 ; 3) 78 ; 4) 79;
5) Universities
6) Capacité, 1er cycle, 2ème cycle.
7) 3ème cycle and beyond 2ème cycle.
8) Full-time only.
9) 1966.
10) Great Britain.
11) Degree-credit students only.

LA : Latest year available.
p : projection.

TABLE 18

AGE DISTRIBUTION OF STUDENTS

(in % of total enrolment)

	Year	- 20	20-24	25-29	30 +
BELGIUM					
Universities	1965	34.9	50.8	10.1	4.2
	1970	31.5	55.3	9.6	3.6
	1975	31.7	53.3	10.8	4.2
	1977	32.2	52.4	10.8	4.6
FRANCE					
Universities	1965	27.1	52.1	13.9	6.6
	1970	20.9	58.5	13.3	7.1
	1975	21.4	48.3	20.2	10.0
	1977	22.1	46.0	20.0	11.7
GERMANY, Fed. Rep. of [5]					
Universities	1965	2.6	65.1	32.4	
	1970	8.9	59.2	31.1	
	1975	6.6	55.9	37.5	
	1976	5.8	55.7	38.5	
Total higher education	1965	5.2	71.5	23.3	
	1970	9.3	61.2	29.8	
	1975	6.9	57.9	32.5	
	1976	10.5	58.1	35.8	
SWEDEN					
Universities	1965 [1]	5.1	61.0	21.8	12.1
	1970 [2]	7.3	54.6	25.6	12.6
	1975	3.2	38.4	27.8	30.6
Total higher education	1970 [3]	7.5	57.7	23.5	11.4
	1975	4.2	40.8	26.1	28.9
	1978	3.6	39.1	23.5	33.8
SWITZERLAND					
Universities	1970		64.0 [6]	27.5	8.5
	1975	6.7	54.2	27.5	11.6
	1978	6.6	54.0	26.3	13.1
UNITED KINGDOM					
Universities	1965	36.8	52.1	11.1	
	1970	33.0	54.9	12.1	
	1975	32.0	52.8	15.2	
Total higher education	1965	37.7	49.7	12.6	
	1970	32.9	52.4	14.7	
	1975	30.5	52.1	17.4	
U.S.A.					
Total higher education	1965 [1]	44.3	40.4		
	1972	32.7	39.3	13.5	14.5 [4]
	1977	31.2	41.4	17.7	9.7 [4]

Notes : 1) 1966 ; 2) 1969 ; 3) oes not include all institutions with non-university higher education. 4) 30-34. 5) Winter semester. 6) - 24 years old.

TABLE 19

ENROLMENT IN NEW INSTITUTIONS OF HIGHER EDUCATION

	1965	1970	1975	1976	1977	1978	1979
ENGLAND AND WALES							
Polytechnics							
- Enrolment (in 000)		107.9	163.0		200.3		
- of which women (in %)		16.7			31.1		
- Enrolment as % of all higher education		17.4	22.2		26.0		
Open University							
- Enrolment (in 000)		19.6 [2)]	56.0	68.0	70.0		
- Enrolment as % of all higher education		3.2 [2)]	7.6	8.9	9.1		
FRANCE							
I.U.T.							
- Enrolment (in 000)	1,644.0 [1)]	24,195.0	43,336.0	44,243.0	47,398.0	49,800.0	
- of which women (in %)	10.9 [1)]	23.9	31.3	32.0		33.4	
- Enrolment as % of all higher education	0.3 [1)]	3.0	4.3	4.3	4.5		
GERMANY, Fed. Rep. of							
Gesamthochschulen							
- Enrolment (in 000)		2,916.0 [2)]	43,089.0	48,988.0	55,189.0	61,714.0	
- of which women (in %)		29.1 [2)]	31.1	30.0	30.3	30.5	
- Enrolment as % of all higher education		0.5 [2)]	5.2	5.6	6.1	6.5	
NORWAY							
Regional Colleges							
- Enrolment (in 000)		.6	4.2	4.4	4.5	5.0	5.7
- Enrolment as % of all higher education		1.2	6.0	6.2	6.4	7.0	-
U.S.A.							
2-Year Institutions							
- Enrolment (in 000)	1,177.0	2,227.0	4,002.0	3,917.0	4,079.0	4,065.0	4,238.0
- of which women (in %)	37.5	40.8	45.5	49.1	51.5	53.2	54.2
- Enrolment as % of all higher education	19.7	25.7	35.4	35.2	35.7	35.7	36.3

Notes : 1) 1966 ; 2) 1971.

TABLE 20

EASTERN EUROPE : TOTAL ENROLMENT IN ALL HIGHER EDUCATION[1)]

(Absolute figures in thousands and annual growth rates in per cent)

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
BULGARIA										
All higher education	84.5	89.3	93.7	101.1	103.5	105.9	106.1	103.7		
Growth rate			4.9	7.9	2.4	2.3	0.1	-2.3		
CZECHOSLOVAKIA										
All higher education	145.0	131.1	128.1	128.0	135.9	144.3	154.6	168.3		
Growth rate			-2.3	-0.1	6.2	6.2	7.2	8.8		
GERMAN DEMOCRATIC REP.										
All higher education	111.6	143.2	158.0	161.0	153.6	144.6	136.9	130.2	129.6	107.5
Growth rate			10.4	1.9	-4.6	-5.8	-5.4	-4.9		
HUNGARY										
All higher education	94.0	80.5	86.3	90.9	98.1	103.4	107.6	110.5	108.6	105.9
Growth rate			7.2	5.3	8.0	5.4	4.0	2.8	-1.7	-2.5
University-type	52.0	44.3					50.0	49.9	49.4	48.6
Growth rate								-0.2	-1.1	-1.5
Non-university type	42.0	36.3					57.6	60.6	59.3	57.3
Growth rate								5.3	-2.2	-3.3
POLAND										
All higher education	251.9	330.8	347.8	364.3	397.9	426.7	468.1	491.0		
Growth rate			5.1	4.7	9.2	7.2	9.7	4.9		
ROMANIA										
All higher education	130.6	151.9	148.4	144.0	143.7	152.7	164.6	174.9	182.3	190.6
Growth rate			-2.3	-3.0	-0.2	6.3	7.8	6.3	4.3	4.5
U.S.S.R.										
All higher education	3860.6	4580.6	4597.5	4630.2	4671.3	4751.1	4854.0	4950.2		
Growth rate			0.4	0.7	0.9	1.7	2.2	2.0		

Notes : 1) Full and part-time day and evening courses.

TABLE 21

EASTERN EUROPE : NEW ENTRANTS IN ALL HIGHER EDUCATION[1)]

(Absolute figures in thousands and annual growth rates in per cent)

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
BULGARIA										
All higher education	15.4	19.0	20.4	24.1	25.3	20.4	21.9	20.3		
Growth rate			7.2	18.3	5.0	-19.5	7.5	-7.2		
CZECHOSLOVAKIA										
All higher education	33.5	31.4	28.9	30.8	35.6	37.8	40.4	43.2		
Growth rate			-7.9	6.4	15.8	6.0	6.9	7.1		
GERMAN DEMOCRATIC REP.										
All higher education	24.7	44.0	44.0	39.4	33.2	34.5	34.4	32.1	32.2	32.4
Growth rate			0.0	-10.4	-15.8	3.9	-0.4	-6.6	0.2	0.6
HUNGARY										
All higher education	25.9	25.4	29.0	30.3	33.4	35.3	35.3	35.4	30.7	30.6
Growth rate			13.9	4.6	10.2	5.8	-0.2	0.4	-13.4	-0.2
POLAND										
All higher education	61.7	79.9	91.3	98.7	115.0	118.9	121.3	114.3		
Growth rate			14.3	7.5	16.5	3.3	2.1	-5.8		
ROMANIA										
All higher education	38.3	30.9	30.8	35.4	34.4	40.3	43.8	47.6	45.8	47.4
Growth rate			-0.4	14.8	-2.6	17.1	8.5	8.9	-3.9	3.6
U.S.S.R.										
All higher education	853.7	911.5	920.3	930.2	937.7	963.0	993.8	1012.5		
Growth rate			1.0	1.1	0.8	2.7	3.2	1.9		

Notes : 1) Full and part-time day and evening courses.

TABLE 22

EASTERN EUROPE : TOTAL ENROLMENT AND NEW ENTRANTS

(Average annual growth rates in per cent)

	Total enrolment			New entrants		
	65-70	70-75	75-LA	65-70	70-75	75-LA
Bulgaria	1.1	3.5	-2.3[1]	4.2	2.9	-7.2[1]
Czechoslovakia	-2.0	3.3	8.8[1]	-1.3	5.1	7.1[1]
German Democratic Rep.	5.1	-0.9	-7.7[3]	12.2	-4.8	-2.0[3]
Hungary	-3.0	6.0	-0.5[3]	-0.4	6.8	-4.6[3]
Poland	5.6	7.2	4.9[1]	5.3	8.7	-5.8[1]
Romania	3.1	1.6	5.0[3]	-4.2	7.2	2.7[3]
USSR	3.5	1.2	2.0[1]	1.3	1.7	1.9[1]
Average	1.9	3.1	1.4	2.4	3.9	-1.1

Notes : LA : Latest year available.
1) 76 ; 2) 77 ; 3) 78 ; 4) 79.

TABLE 23 EASTERN EUROPE : FEMALE PARTICIPATION IN HIGHER EDUCATION
(in % of total enrolment)

	65/66	70/71	75/6	78/9
German Democratic Republic	26.1	35.4	48.2	56.4
Hungary	39.1	42.8	48.3	50.3
Romania	39.3	43.0	44.8	42.9

TABLE 24

EASTERN EUROPE : DEGREES AWARDED ALL LEVELS

(Absolute figures in thousands and annual growth rates in per cent)

	65/6	70/1	71/2	72/3	73/4	74/5	75/6	76/7	77/8	78/9
BULGARIA										
All degrees	7.8	12.4	13.1	13.4	14.5	15.0	14.7	16.6		
Growth rate			5.5	2.5	8.1	3.6	-2.3	12.9		
CZECHOSLOVAKIA										
All degrees	17.8	18.7	19.6	20.5	20.9	21.7	22.2	22.1		
Growth rate			4.7	4.7	1.9	3.7	2.5	-0.7		
GERMAN DEMOCRATIC REP.										
All degrees	20.9	22.3	23.3	27.8	32.8	36.3	36.5	32.6	27.1	28.9
Growth rate			4.4	19.4	18.1	10.4	0.7	-10.7	-16.9	6.7
HUNGARY										
All degrees	13.9	18.2	17.1	18.4	22.6	24.0	24.3	26.0	25.9	27.6
Growth rate			-6.0	7.5	22.5	6.5	1.0	7.1	-0.2	6.3
University level	7.4	9.5					10.5	9.8	9.8	10.2
Growth rate								-5.3	0.0	3.5
Below university level	6.5	8.7					15.1	16.2	16.1	17.4
Growth rate								7.0	-0.4	8.0
POLAND										
All degrees	25.2	47.1	47.2	55.8	62.9	71.1	63.2	62.9		
Growth rate			0.3	18.1	12.7	13.0	-11.0	-0.5		
ROMANIA										
All degrees	22.6	28.8	35.1	31.5	30.3	28.9	30.8	32.5	33.9	
Growth rate			21.9	-10.2	-3.9	-4.7	6.7	5.4	4.3	
U.S.S.R.										
All degrees	403.9	630.8	672.4	684.3	692.3	693.4	713.4	734.6		
Growth rate			6.6	1.8	1.2	0.2	2.9	3.0		

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TABLE 25 EASTERN EUROPE : APPROXIMATE ENROLMENT RATES[1)]

Country and age-group	Year	Population of age-group in 000	Population of age-group 1970=100	Enrolment in all higher education in relation to age-group (in %)
BULGARIA	1960	580.0	84.3	9.5
	1965	587.4	85.3	15.4
20-24	1970	688.3	*100.0*	13.3
	1975	678.0	98.5	16.4
	1977	655.4	95.2	14.8
CZECHOSLOVAKIA	1960	859.0	68.4	10.9
	1965	1,042.0	82.9	13.9
20-24	1970	1,256.3	*100.0*	10.4
	1975	1,274.2	101.4	12.2
	1977	1,128.0	89.8	15.9
GERMAN DEMOCRATIC REP.	1960	1,401.0	151.5	7.1
	1965	1,170.0	126.5	9.6
20-24	1970	925.0	*100.0*	15.5
	1975	1,301.0	140.6	10.5
	1977	1,308.6	141.5	9.9
POLAND	1960	2,220.0	78.8	7.5
	1965	1,938.0	68.8	13.0
20-24	1970	2,817.0	*100.0*	11.8
	1975	3,411.7	121.1	13.7
	1977	3,405.6	120.9	14.4
ROMANIA	1960	1,586.0	105.6	4.5
	1965	1,330.2	88.6	9.8
20-24	1970	1,502.0	*100.0*	10.1
	1975	1,795.4	119.5	9.2
	1977	1,775.8	118.2	10.2
HUNGARY	1960	684.0	174.6	6.5
	1965	745.0	190.1	12.6
20-24	1970	391.8	*100.0*	20.5
	1975	450.3	114.9	24.0
	1977	789.7	201.6	13.8
U.S.S.R.	1960	21,735.9	120.0	11.0
	1965	13,082.9	72.2	29.5
20-24	1970	18,108.0	*100.0*	25.3
	1975	22,333.0	123.3	21.7
	1977	24,843.0	137.2	20.3

Note 1): See table 11, note 1).

TABLE 26 EASTERN EUROPE : NUMBER OF DEGREES AWARDED IN RELATION TO POPULATION AGED 24*

(in %)

	1965	1970	1977
Bulgaria	9.0	11.0	17.7
Czechoslovakia	9.7	8.5	11.8
German Democratic Republic	10.3	14.0	12.0
Hungary	10.8	26.9	19.0
Poland	7.5	9.7	13.9
Romania	8.5	9.5	10.6
USSR	17.9	20.2	17.5

* Comprises all degrees in all types of higher education.

TABLE 27 EASTERN EUROPE : PERCENTAGE OF PART-TIME STUDENTS[1] IN TOTAL ENROLMENT

	65/6	70/1	75/6	76/7	77/8	78/9
BULGARIA						
Total enrolment	84,467	89,331		106,055		
% Part-time	32.8	25.9	28.1	27.6		
CZECHOSLOVAKIA						
Total enrolment	144,990	131,099	154,645	168,310		
% Part-time	34.5	19.4	20.7	22.6		
GERMAN DEMOCRATIC REPUBLIC						
Total enrolment	111,591	143,163	136,854	130,201	129,615	127,473
% Part-time	33.2	30.2	24.7	22.0	19.7	18.7
of which females (in %)	14.9	15.7	21.5	23.1	25.4	26.0
HUNGARY						
Total enrolment	93,957	80,536	107,555	110,528	108,649	105,926
% Part-time	31.0	33.2	40.2	41.6	40.5	39.0
of which females (in %)		38.9	49.4	52.7	53.1	51.7
POLAND						
Total enrolment	251,864	330,789	468,129	491,030		
% Part-time	39.5	36.5	39.5	38.7		
ROMANIA						
Total enrolment	130,614	151,885	164,567	174,888	182,337	190,560
% Part-time	26.2	29.3	29.7	27.3	24.0	21.9
U.S.S.R.						
Total enrolment (in 000)	3,860.6	4,580.6	4,854.0	4,950.2		
% Part-time	59.0	51.1	45.9	45.2		

Notes : 1) Evening and correspondence courses.

TABLE 28 EASTERN EUROPE : DISTRIBUTION OF STUDENTS BY MAJOR FIELDS OF STUDY (ALL HIGHER EDUCATION) FOR GERMAN DEMOCRATIC REPUBLIC[5], HUNGARY[5] AND ROMANIA[6]

(in %)

German Democratic Republic[5], Hungary[5], Romania[6]	1965	1970	1975	LA[3]
HUMANITIES				
German Democratic Republic	6.7	7.8	10.4	11.2
Hungary	6.8	4.4	3.5	5.2
Romania [7]	37.7	38.3	23.7	14.8
SOCIAL SCIENCE				
German Democratic Republic	10.8	14.4	15.5	14.0
Hungary	5.2	5.8	7.8	9.9
Romania	9.9	13.8	13.9	12.4
MEDICAL SCIENCE				
German Democratic Republic	12.9	6.7	7.7	10.1
Hungary	5.7	5.8	5.7	7.0
Romania	7.2	6.5	10.3	11.7
PURE SCIENCE				
German Democratic Republic	8.4	9.5	7.5	6.7
Hungary	6.1	4.0	4.1	4.1
TECHNOLOGY				
German Democratic Republic	25.4	32.1	29.4	29.0
Hungary	32.7	34.2	27.9	28.3
Romania [8]	40.0	35.3	46.2	56.1

Notes : 1) 76 ; 2) 77 ; 3) 78 ; 4) 79. 5) Total enrolment. 6) New entrants. 7) Includes education.. 8) Includes pure science and architecture.

LA : Latest year available.

TABLE 29

EASTERN EUROPE : NUMBER OF QUALIFIED SECONDARY SCHOOL LEAVERS AND THEIR RELATION TO NUMBER OF NEW ENTRANTS

(Absolute figures in thousands and annual growth rates in per cent)

	1965	1970	1975	1976	1977	1978
GERMAN DEMOCRATIC REPUBLIC						
Qualified school leavers (school year ending)	60.5	79.3	77.5	72.7	76.0	75.0[e]
Growth rate		5.6	-0.5	-6.3	4.5	-1.3
Leavers entering higher education (school year beginning) in %	40.8	55.5	44.4	44.2	42.4	43.2
HUNGARY						
Qualified school leavers (school year ending)	44.7	48.1	46.3	46.6	45.6	
Growth rate		1.5	-0.8	0.7	-2.0	
Leavers entering higher education (school year beginning) in %	57.9	52.8	76.2	76.0	67.3	

Notes : e = estimate.

TABLE 30

EASTERN EUROPE (HUNGARY[1]) : AGE DISTRIBUTION OF STUDENTS

(in % of total enrolment)

	1970	1975	1976	1977	1978
Less than 20 years old	29.5	25.9	25.0	25.9	26.6
20 - 24	67.1	69.7	70.3	68.8	67.4
25 - 29	3.4	4.0	4.2	4.7	5.2
30 and over	0.4	0.4	0.5	0.6	0.8

Notes : 1) full-time students.

TABLE 31

EASTERN EUROPE : SOCIAL ORIGIN OF STUDENTS

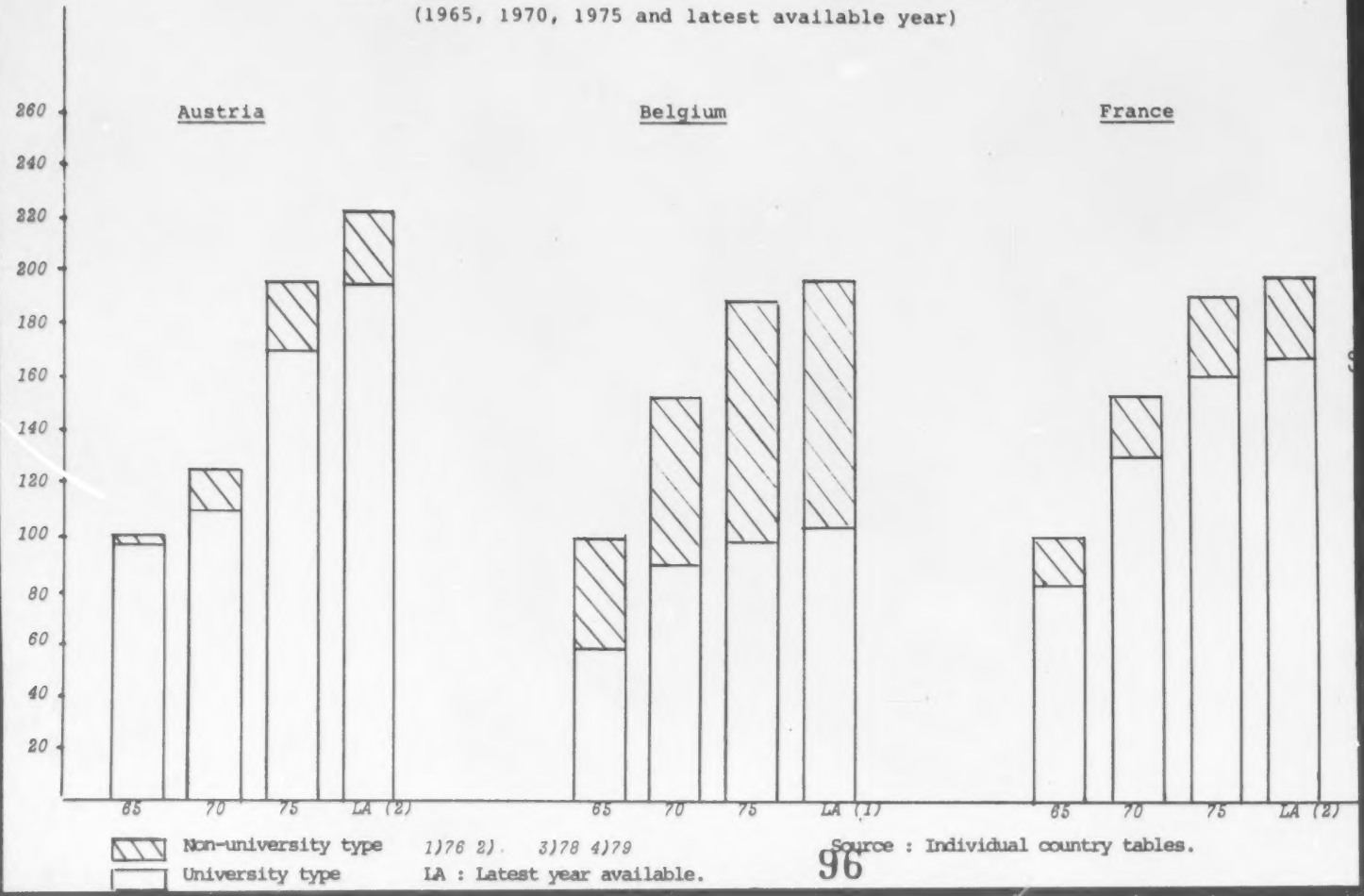
(in % of full-time day enrolment)

	1960	1970	1975	1976	1977	1978
HUNGARY						
Manual workers (excluding agricultural cooperatives) Non-manual workers (excluding agricultural cooperatives)	32.7		34.0	36.7	37.3	38.3
Manual workers in agricultural cooperatives Non-manual workers in agricultural cooperatives	18.1		8.0	8.2	8.0	7.8
White collars	40.3		51.9	53.3	52.9	52.4
Private sector/small employees, small holders, etc.	3.4		1.9	1.8	1.8	1.5
Foreigners	0.5		3.9	3.9	4.0	4.1
POLAND	1965		1974			
Workers	28.9	34.3	30.1		33.1	33.7
Peasants	14.9	15.7	13.9		9.1	8.7
Intelligentsia	50.4	50.3	52.3		52.2	53.4
Others	5.4	4.3	3.7		5.6	4.2

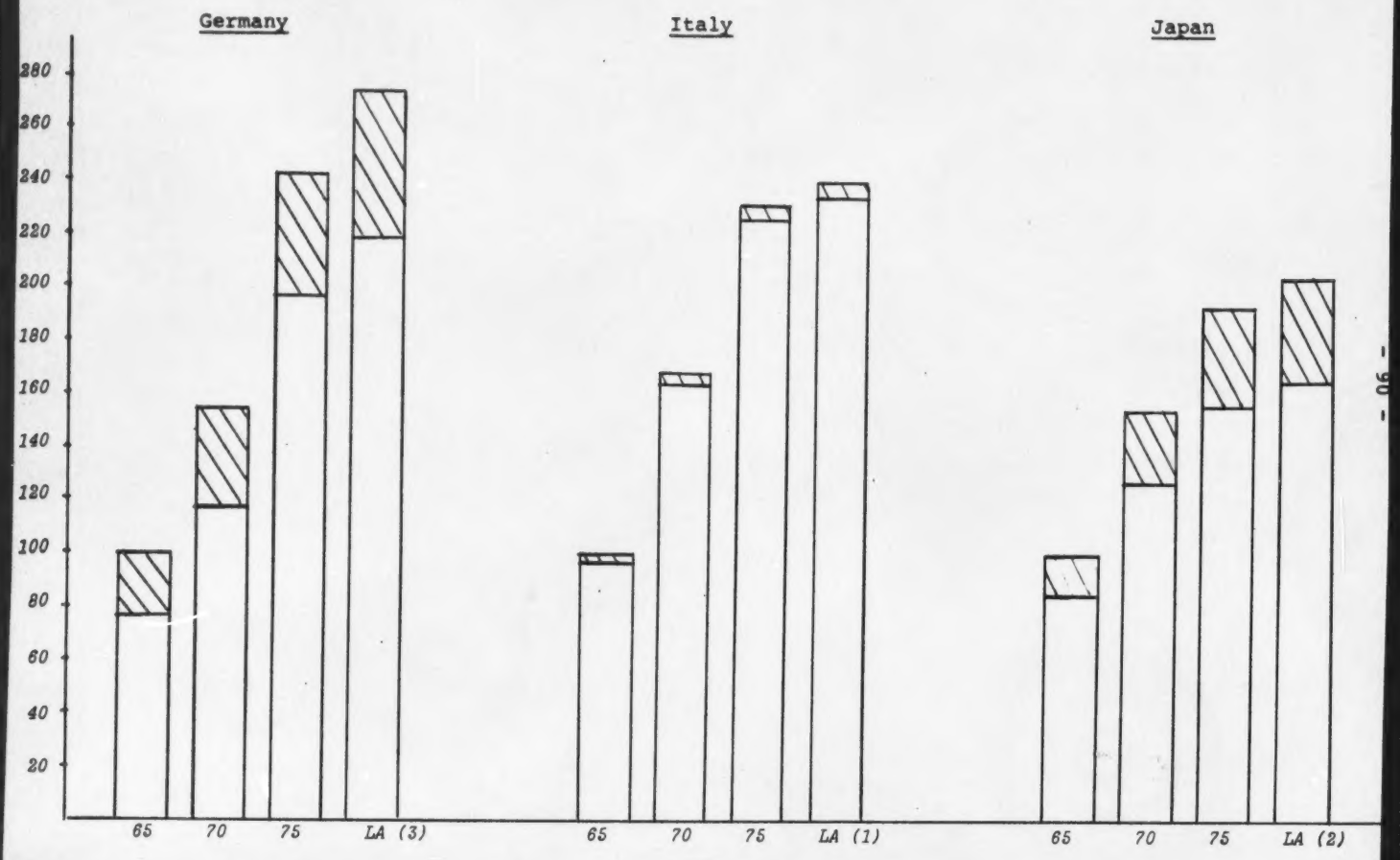
GRAPHS

GRAPH 1

INCREASE IN AND DISTRIBUTION OF ENROLMENTS BETWEEN UNIVERSITY AND NON-UNIVERSITY TYPE HIGHER EDUCATION
(1965, 1970, 1975 and latest available year)

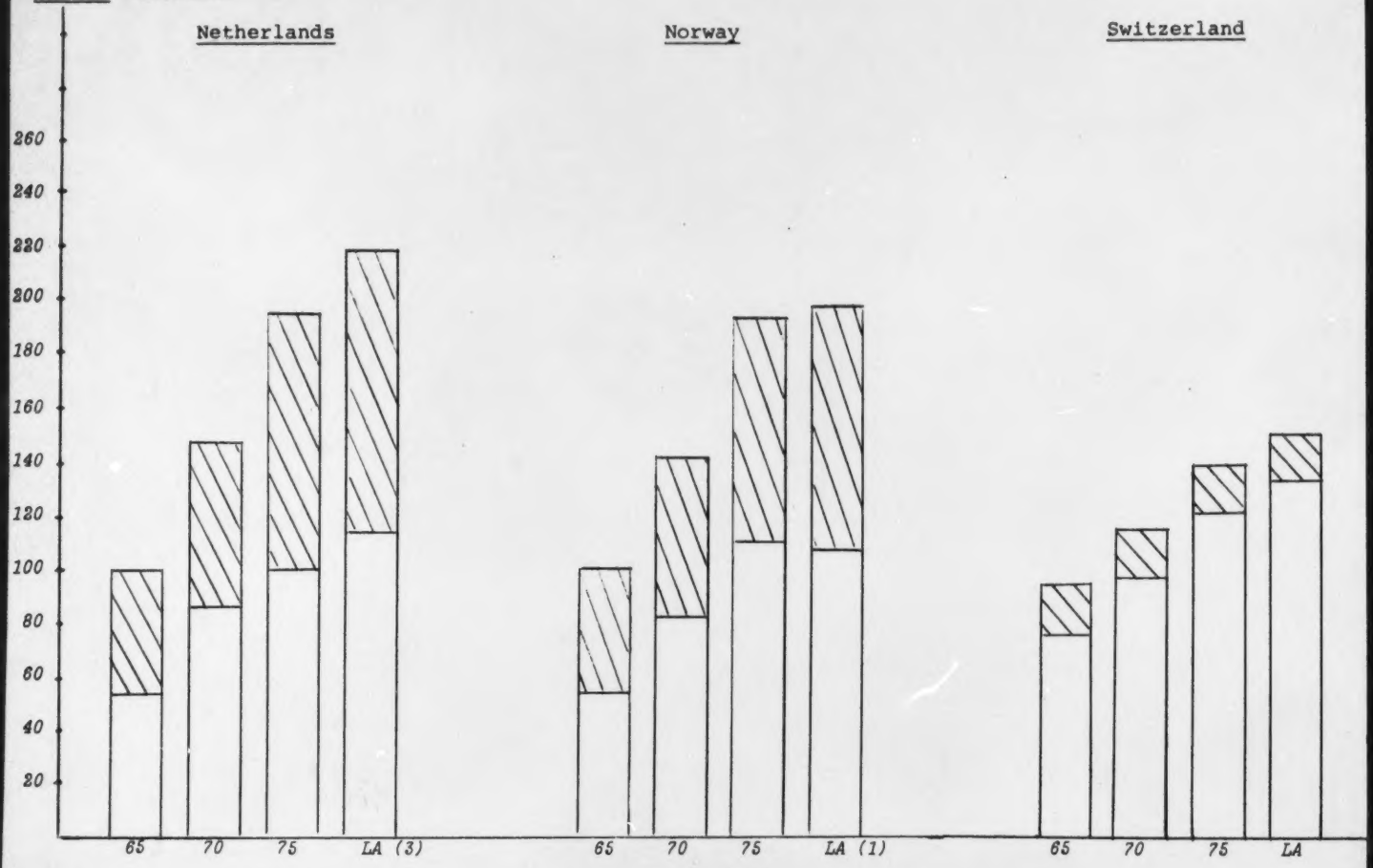


GRAPH 1 *(continued)*



Cor. 97

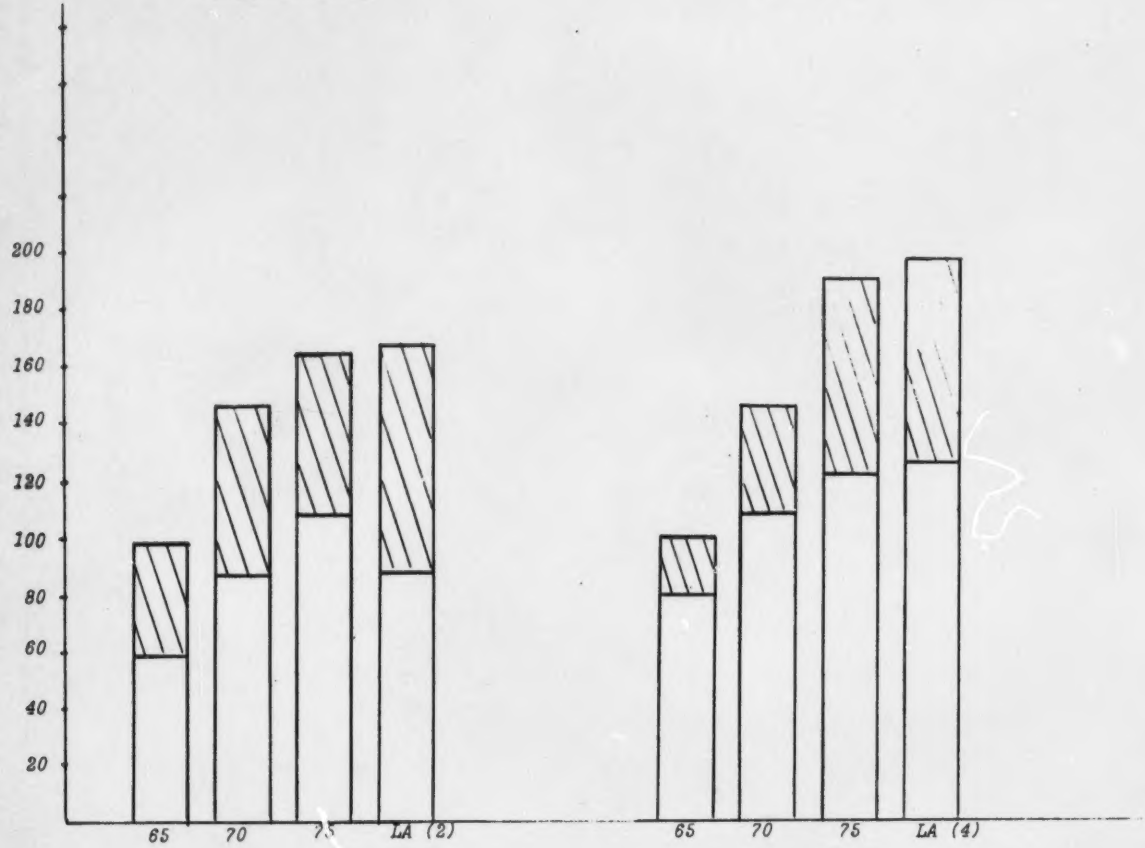
GRAPH 1 *(continued)*



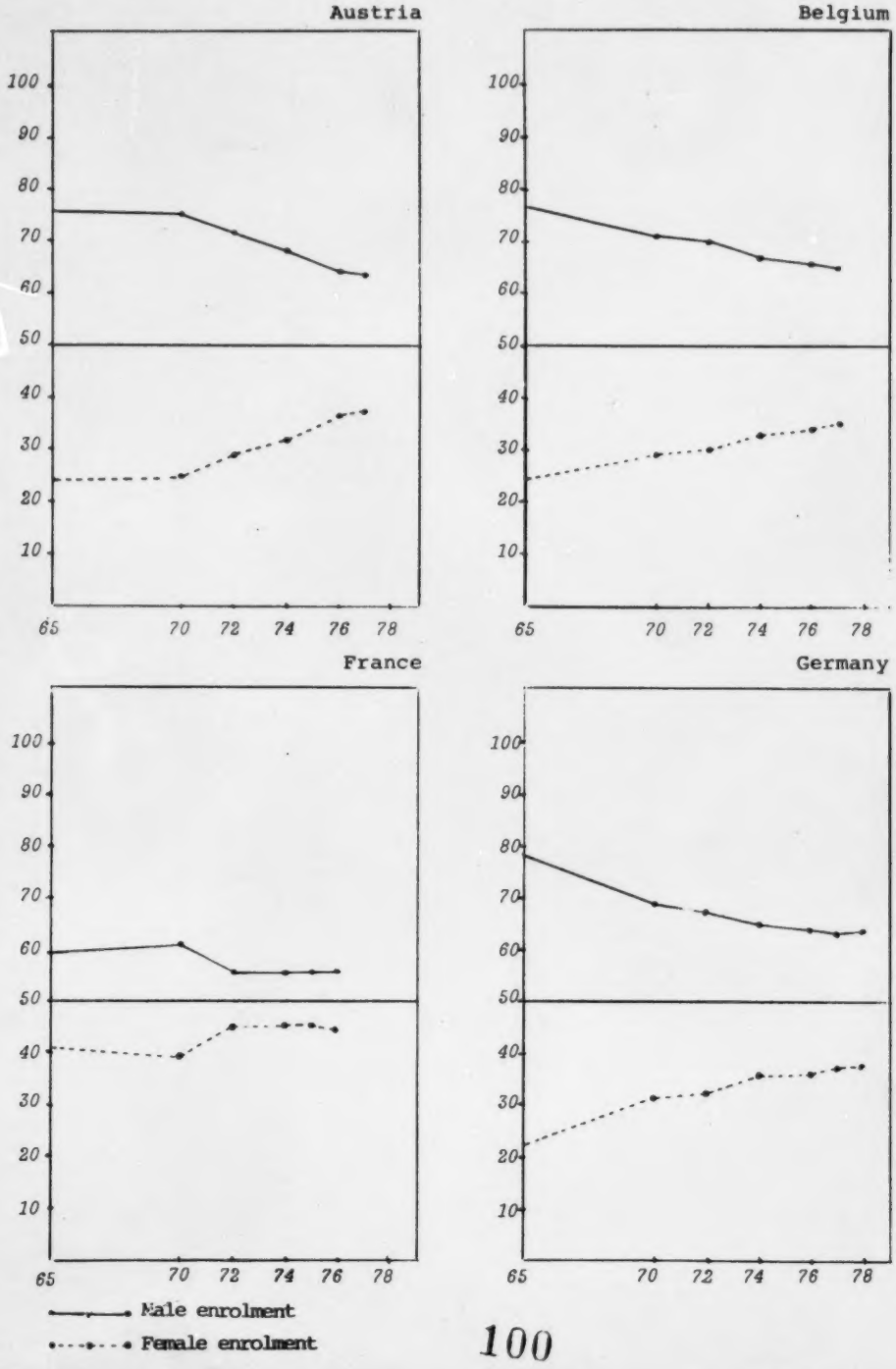
GRAPH 1 *(continued)*

United Kingdom

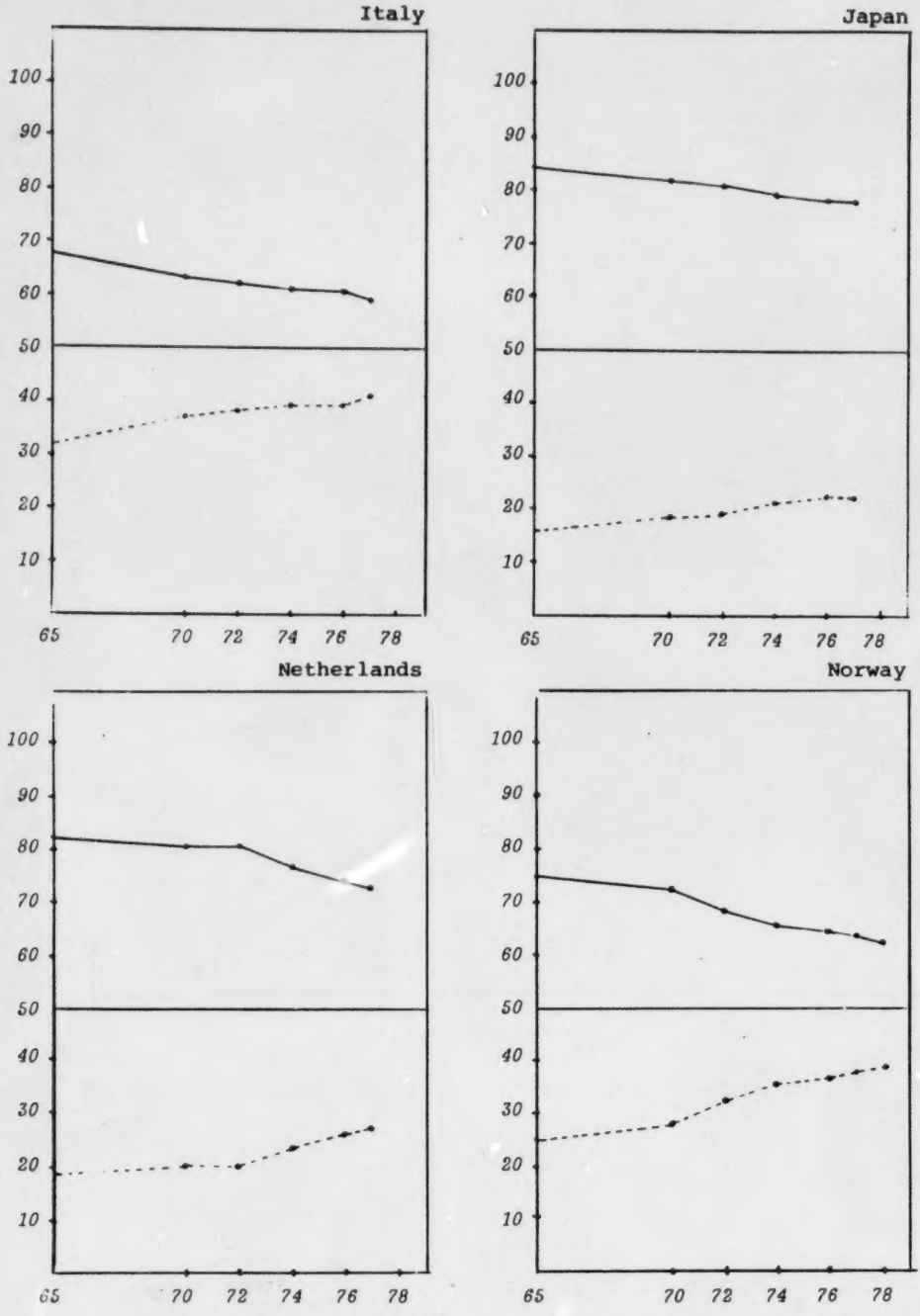
U.S.A.



GRAPH 2 PROPORTION OF MALE AND FEMALE ENROLMENT IN UNIVERSITY TYPE HIGHER EDUCATION (IN %)

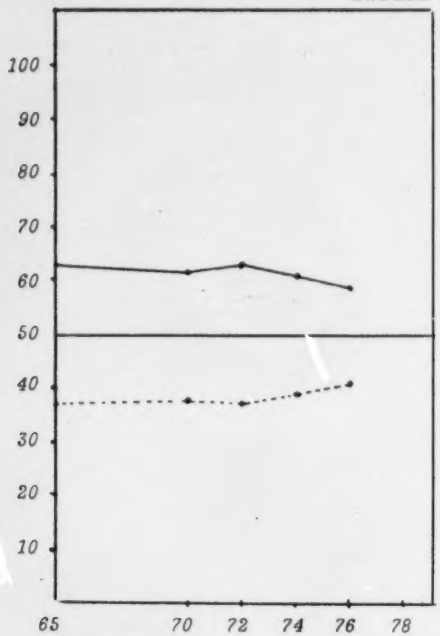


GRAPH 2 *(continued)*

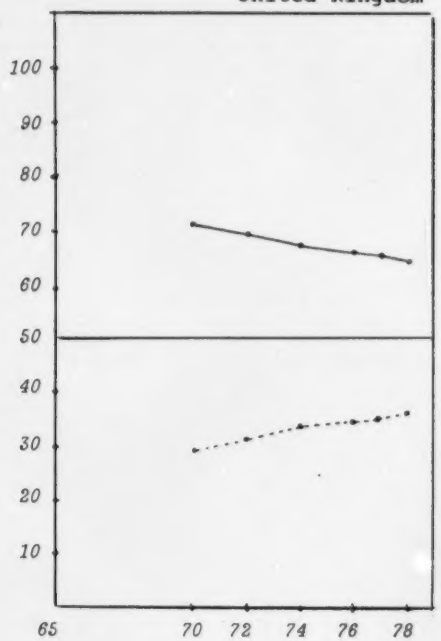


GRAPH 2 *(continued)*

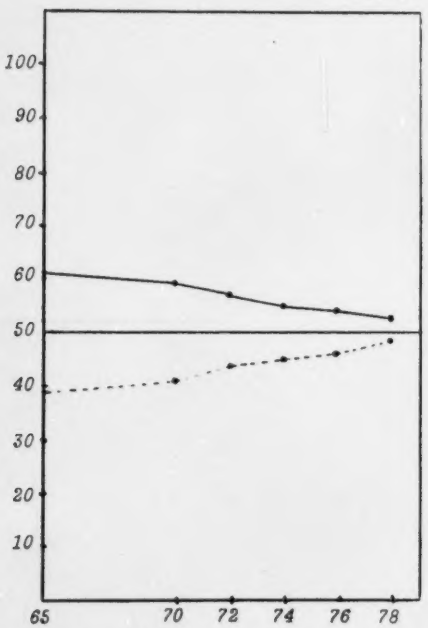
Sweden



United Kingdom[1)]



U.S.A.



1) Universities only.

Source : Individual country tables.

S O U R C E S

Table 1

Austria	: unpublished OECD data and Österreichisches Statistisches Zentralamt : Österreichische Hochschulstatistik, Wien (appropriate years).
Belgium	: 1965-76 : unpublished OECD data. 1977 : Fondation Universitaire, Bureau de Statistiques Universitaires, Rapport Annuel 1978, Bruxelles.
France	: unpublished OECD data and Ministère de l'Education, Service des Etudes Informatiques et Statistiques (SEIS) : Note d'Information and Tableaux des enseignements et de la formation, Paris (appropriate issues or years).
Germany	: 1965-77 : unpublished OECD data. 1978-79 : Statistisches Bundesamt Wiesbaden, Reihe 4.1, Bildung und Kultur, Studenten an Hochschulen, Wintersemester 1978/79, Wiesbaden.
Italy	: 1965-76 : unpublished OECD data. 1977 : Istituto Centrale di Statistica (ISTAT), Compendio Statistico Italiano 1979, Roma.
Japan	: 1965-77 : unpublished OECD data.
Netherlands	: 1965-77 : unpublished OECD data.
Norway	: based on tables prepared especially for the Institute of Education by the Institute for Studies in Research and Higher Education, Oslo.
Sweden	: based on tables prepared especially for the Institute of Education by the National Board of Colleges and Universities, Stockholm.
Switzerland	: Bureau Fédéral de Statistiques. Annuaire statistique de la Suisse, Berne (appropriate years).
United Kingdom	: unpublished OECD data and tables prepared especially for the Institute of Education by S.B. Crooks, Open University, on the basis of official data of the University Grant's Committee and of DES.
USA	: 1965-77 : American Council of Education (ACE), A Fact Book on Education : Enrollment Data 1977, Washington DC. 1978-79 : National Center for Education Statistics (NCES), Early Release : Fall Enrollment in Colleges and Universities 1979, preliminary estimates, Washington DC, 1979.

Table 2

Austria	: see table 1.
Belgium	: - university type : Fondation Universitaire, Bureau de Statistiques Universitaires, Rapport Annuel 1979, Bruxelles. - non-university type : unpublished OECD data.
France Germany Italy Japan Netherlands Norway Sweden Switzerland United Kingdom	: see table 1.
USA	: 1965-77 : American Council of Education (ACE), A Fact Book on Education ; Enrollment Data 1977, Washington DC, 1978 : NCES, Digest of Education Statistics 1979. Washington DC.

Table 3

Figures from table 1.

Table 4

Figures from table 2.

Table 5

Figures from tables 1 and 2.

Table 6

Austria	: Bundesministerium für Wissenschaft und Forschung, Hochschul Bericht, 1978, Wien.
Belgium	: 1965/6 - 73/4 : Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, ICED, New York/Institute of Education, Paris, 1976. 1974/5 - 76/7 : Fondation Universitaire, Bureau de Statistiques Universitaires, Rapport Annuel Bruxelles, (appropriate years).
France	: Ministère de l'Education. Service des Etudes Informatiques et Statistiques (SEIS). Tableaux des Enseignements et de la Formation, Paris (appropriate years).
Germany	: 1965 - 76/7 : Bundesminister für Bildung und Wissenschaft, Grund und Struktur Daten 1978, Bonn. 1977/8 : Statistisches Bundesamt Wiesbaden, Bildung im Zahlenspiegel 1979, Wiesbaden.

Italy : 1970-75 : ISTAT, Annuario Statistico Dell'Istruzione, Roma (appropriate years).
1976 : ISTAT. Statistiche Dell'Istruzione, Datti Sommari, 1976, Roma.
1977 and 78 : ISTAT, Bollettino Mensile di Statistica, Roma, (appropriate years).

Japan : 1965/6 - 72/3 : Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit.
1973/4 - 76/7 : Ministry of Education, Science and Culture, Statistical Abstracts of Education, Science and Culture, 1978, Tokyo.

Netherlands : 1965/6 - 72/3 : Hecquet, I., Verniers, C. & Cerych, L. Recent Student Flows in Higher Education, op.cit.
1975/6 - 77/8 : Centraal Bureau voor de Statistiek, Mededelingen, Statistieken van Onderwijs en Wetenschappen, nos.7676 and 7698, The Hague, 1978 and 1979.

Norway : see table 1.

Sweden : see table 1.

United Kingdom : - DES, Statistics of Education 1976, Vol.4, HMSO, London.
- Northern Ireland Department of Education, Education Statistics, HMSO, Belfast (appropriate years).
- Scottish Education Department, Education Statistics, HMSO, Edinburgh (appropriate years).
- DES, Education Statistics for the United Kingdom, HMSO, London (appropriate years).

USA : - university type : NCES, The Condition of Education, 1978, Washington DC.
- non-university type : NCES, Digest of Educational Statistics, 1977-78, Washington DC.

Table 7

See tables 1 and 2.

Table 8

See tables 1 and 2.

Table 9

Austria : Bundesministerium für Wissenschaft und Forschung, Hochschul Bericht, 1978, Wien.

Belgium : see table 6.

France : see table 6.

Germany : Statistiches Bundesamt Wiesbaden, Bildung im Zahlenspiegel, 1979, Wiesbaden.

Italy : only certificates giving access to university were considered.

1964/5 - 69/70 ; Hecquet, I., Verniers, C, & Cerych, L., Recent Student Flows in Higher Education, op.cit.
1973/4 - 74/5 : ISTAT, Annuario Statistico Dell' Istruzione, Roma (appropriate years).
1975/6 - 76/7 : ISTAT, Statistiche Dell'Istruzione, Datti Sommari, Roma (appropriate years).

Japan : see table 6.

Netherlands : 1965-70 : Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit.
1971-77 : Centraal Bureau voor de Statistiek, Statistiek van het VWO, HAVO en MAVO, The Hague (appropriate years).

Norway : see table 1.

Sweden : see table 1.

Switzerland : see table 1.

United Kingdom : . DES, Statistics of Education, Vol.II, School-leavers, CSE, GCE (England and Wales), HMSO, London (appropriate years).
. Scottish Department of Education, Statistics of Education, HMSO, Edinburgh (appropriate years).

USA : . NCES, The Condition of Education, 1978, Washington DC.
. NCES, Digest of Educational Statistics, 1979, Washington DC.
. ACE, A Fact Book on Education : Enrollment Data 1977, (second issue), Washington DC.

Table 10

Figures based on data of tables 2 and 9.

Table 11

Enrolment figures from table 1. For source of population figures, see notes for table 11.

Table 12

New entrants' figures from table 2. For source of population figures, see notes for table 11.

Table 13

Degree figures from table 6. For source of population figures, see notes for table 11.

Table 14

Austria : Bundesministerium für Wissenschaft und Forschung, Hochschul Bericht, 1978, Wien.

Belgium : Fondation Universitaire, Bureau de Statistiques Universitaires, Rapport Annuel, 1978 and 1979, Bruxelles.

France	: 1965, 1970 : Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit. 1975, 1977 : Ministère de l'Education. Service des Etudes Informatiques et Statistiques (SEIS) : Note d'Information, no.4, 1976, no.6, 1978, Paris.
Germany	: unpublished OECD data.
Italy	: 1965, 1970 : Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit. 1975 : ISTAT, Annuario Statistico Dell'Istruzione 1977, Roma.
Japan	: Ministry of Education, Science and Culture, Statistical Abstracts of Education, Science and Culture, 1978, Tokyo.
Netherlands	: 1965, 1970 : Hecquet, I., Verniers, C. & Cerych, L., Recent Student Flows in Higher Education, op.cit. 1976, 1978 : Centraal Bureau voor de Statistiek, Mededelingen, Statistieken van Onderwijs en Wetenschappen, nos. 7655 and 7675.
Norway	: see table 1.
Sweden	: see table 1.
Switzerland	: see table 1.
United Kingdom	: 1966-75 : unpublished OECD data. 1977-78 : Universities Central Council on Admission, 16th Annual Report 1977/78, London.
USA	: ACE, A Fact Book on Education : Enrollment Data 1977, Washington DC.

Table 15

France	: Le Monde de l'Education, no.54, Oct.1979.
Germany	: Bundesminister für Bildung und Wissenschaft, Grund und Struktur Daten 1978, Bonn.
Sweden	: see table 1.
USA	: NCES, The Condition of Education, 1978, Washington DC.

Table 16

United Kingdom	: DES, Education Statistics for the United Kingdom, HMSO, London (appropriate years).
USA	: 1965, 1970, 1975 : ACE, A Fact Book on Education : Enrollment Data 1977, Washington DC. 1979 : NCES, Early Release : Fall Enrollment in Colleges and Universities 1979, preliminary estimates, Washington DC.

Table 17

France	: Ministère de l'Education, Service des Etudes Informatiques et Statistiques (SEIS) : Tableaux des enseignements et de la formation, Paris (appropriate years).
Japan	: see table 14.

Norway : see table 1.

Sweden : see table 1.

United Kingdom : see table 16.

USA : ACE, A Fact Book on Education : Enrollment Data 1977, Washington DC.

Table 18

Belgium : Fondation Universitaire. Bureau de Statistiques Universitaires, Rapport Annuel, 1976 and 1978, Bruxelles.

France : Ministère de l'Education, Service des Etudes Informatiques et Statistiques (SEIS), L'enseignement supérieur en France. Etude statistique et évolution de 1959-1960 à 1977-1978. Etudes et documents 80-2. Paris, 1980.

Germany : Bundesminister für Bildung und Wissenschaft, Grund und Struktur Daten 1978, Bonn.

Sweden : see table 1.

Switzerland : see table 1.

United Kingdom : see table 16.

USA : NCES. Digest of Educational Statistics 1979, Washington DC.

Table 19

France : Ministère de l'Education. Service des Etudes Informatiques et Statistiques (SEIS). Tableaux des Enseignements et de la Formation, Paris (appropriate years).

Germany : Statistisches Bundesamt Wiesbaden, Bildung im Zahlenspiegel 1979, Wiesbaden.

Norway : Kyvik, S., The Norwegian Regional Colleges, A Study of the Establishment and Implementation of a Reform in Higher Education. Institute for Studies in Research and Higher Education, Oslo, 1981.

United Kingdom : DES. Statistics of Education, Vol.3, Further Education (appropriate years).

USA : 1965-77 : ACE. A Fact Book on Education : Enrollment Data 1977, Washington DC.
1978, 1979 : NCES. Early Release, Fall Enrollment in Colleges and Universities 1979, preliminary estimates, Washington DC.

Table 20

Bulgaria : Sovremnaia Vysshaia Shkola (Contemporary Higher Education), 3(27), Warsaw, 1979.

Czechoslovakia : Sovremnaia Vysshaia Shkola, 3(27), Warsaw, 1979.

German Democratic Republic : tables prepared especially for the Institute of Education by Jan Sadlak of the European Centre for Higher Education (CEPES), Unesco, Bucharest, 1979.

Hungary : 1965, 1970, 1975-78 : tables prepared especially for the Institute of Education by Dr. Pál Tamás, Institute of Sociology, Hungarian Academy of Science, and based upon data from Information Bulletins of the Ministry of Education.
1971-74 : Sovremnaia Vysshaia Shkola, 3(27), Warsaw, 1979.

Poland : Sovremnaia Vysshaia Shkola, 3(27), Warsaw, 1979.

Romania : 1965, 1970, 1975-78 : tables prepared for the Institute of Education by Jan Sadlak, CEPES, Unesco, Bucharest, using computations based upon Anuavul Statistic al Republicii Socialiste România 1979 (Statistical yearbook of Romania) and corresponding years published by Direcţia Centrală de Statistică (Central Office of Statistics in Bucharest).
1971-74 : Sovremnaia Vysshaia Shkola, 3(27), Warsaw, 1979.

USSR : Sovremnaia Vysshaia Shkola, 3(27), Warsaw, 1979.

Table 21

All countries, see table 20.

Table 22

All countries, see table 20.

Table 23

All countries, see table 20.

Table 24

All countries, see table 20.

Table 25

All countries ; data based on tables prepared by T. Obrebski and H. Jablonska-Skinder, Institute of Science Policy, Technological Progress and Higher Education, Warsaw, 1979.

Table 26

All countries ; Statistical Yearbook of Member Countries of the Council for Mutual Economic Cooperation (COMECON) 1978.

This document relates the number of degrees to the age-group 20-24. In order to relate the number of degrees to a single age of 24, a standard coefficient of 5.8 was used.

Table 27

All countries : see table 20.

Table 28

German Democratic Republic : see table 20.

Hungary : table prepared for the Institute of Education by Dr. Pál Tamás, Institute of Sociology, Hungarian Academy of Science, and based upon data from Information Bulletins of the Ministry of Education. 1960-65 : Mlv. Min. Stat. Táj. Felsőoktatás. 1970, 1975-78 : Okt. Min. Stat. Táj. Felsőoktatás.

Romania : see table 20.

Table 29

German Democratic Republic : tables prepared for the Institute of Education by Jan Sadlak, CEPES, Unesco, Bucharest, using computations based upon Statistisches Jahrbuch der DDR 1979, edited by Staatliche Zentralverwaltung für Statistik.

Hungary : 1965, 1970, 1975-78 : tables prepared for the Institute of Education by Dr. Pál Tamás, Institute of Sociology, Hungarian Academy of Science, using computations based upon OM Stat. Tájekoztató Középfoku Oktatás 78/79.

Table 30

Hungary : tables prepared for the Institute of Education by Dr. Pál Tamás, Institute of Sociology, Hungarian Academy of Science, using computations based upon MIM.-OM, St.T. Felsőoktatás.

Table 31

Hungary : see table 30.

Poland : data received from the Institute of Science Policy, Technological Progress and Higher Education, Warsaw.

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METHODOLOGY USED

Because of the updating characteristic of the present volume, every effort has been made to provide a body of data which is comparable to that found in the 1976 edition of Recent Student Flows in Higher Education. This was not possible in all cases. Those who are familiar with the evolution of classifications used for international comparisons, know that the problems involved are many[1]. Not only are the systems used by international collecting agencies in a constant state of evolution, but the education systems themselves are changing as well. Any attempt to collect international statistics which are comparable to those in other studies is doomed to find itself in the metaphorical position of sitting down between two chairs. As outlined in its first chapter, the '76 edition of Student Flows relied heavily on the system of classification used by OECD in its publication, Development of Higher Education 1950-1967[2]. But because of important changes in educational functions and structures during the period, and changes in the method of classification used by OECD, it was also obliged to use the later and slightly modified OECD system of classification, the Classification of Education Systems of OECD Member Countries[3].

Since the 1976 publication, more changes have taken place in educational systems as well as in the classifications used to study them. In particular, OECD, Unesco and the Statistical Office of the European Communities have been working more closely to produce yet another classification system[4]. Thus the present volume, while organising most of its data around the Classification of Education Systems of OECD Member Countries[5], has also compiled statistics for several countries which are based upon the more

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1) For further information see : Colton, S. 'Chaotic Uniformity in European Higher Education Statistics', European Journal of Education, Vol.14, No.4, Carfax Publishing Company, Oxford, 1979, p.87.

2) Statistical Survey, Paris, OECD 1970 and Analytical Report, Paris, OECD 1972.

3) OECD, 'Analytical Report', op.cit.

4) See 'Chaotic Uniformity', op.cit.

5) OECD, 'Analytical Report', op.cit.

recent ISCED system of classification[1]. The reader is, therefore, asked to refer to the series of OECD publications[2] which provide the general outline and definitions used in the classification in addition to specific breakdowns for each country. For a few countries, reference must be made to the Unesco ISCED classification[3]. For the Eastern European countries, except for the cases in which the specific Ministry of Education provided its own classification system, data were compiled on the basis of the general OECD classification[4].

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1) Unesco, International Standard Classification of Education, Paris, 1976.

2) OECD, Classification of Education Systems of OECD Member Countries, Paris, 1972.

3) Unesco, Paris, 1976, op.cit.

4) Since these countries are not members of OECD there is no official OECD breakdown country by country. The general classification was therefore applied and approximations made when necessary.

PART TWO

EXPENDITURE ON HIGHER EDUCATION IN EUROPE. PAST TRENDS AND FUTURE PROSPECTS

by Jean-Pierre Jallade.

Introduction :

The purpose of this section is to present an overview of trends in expenditure on higher education in 19 European countries, including six Eastern countries. The statistical data used in the analysis come mainly from Unesco and the OECD. The former has now been collecting statistics on education expenditure on a regular basis since the mid-1960s. These are based on questionnaires completed regularly by national education authorities at the request of the Unesco Office of Statistics and fed into its data bank[1]. Data on teachers and enrolments in Eastern Europe are also from Unesco.

The OECD has spent a lot of time collecting homogeneous statistics on enrolments in higher education in its area since 1965. Standardised according to definitions similar for all its member countries, this material provides a good basis for international comparisons among Western European nations, and was used in the present analysis. In some cases, it was necessary to complement it with information from national sources.

A few cautionary remarks about the reliability of statistics on higher education expenditure are in order. There is no doubt that these figures are subject to a certain margin of error because of differences of definitions both between countries and over time within one country. The 'boundaries' of higher education are not always easy to recognise and, even if they are agreed, the multiplicity of institutional authorities responsible for spending on higher education quickly discourages the search for thorough statistical comprehensiveness. Obviously, a law of diminishing returns applies here since the search for accuracy at all costs is worthwhile only if the additional insight resulting from more accurate data is likely to alter significantly the conclusions of the analysis.

In the case of the present study which is heavily focused on comparisons across countries and over time[2], further difficulties arise, first, from

reference to official exchange rates for converting national currencies into a common standard (the US dollar) and, secondly, from the use of the general price index for gauging inflation. While exchange rates seldom represent purchasing power parities, especially in the case of the Eastern countries, it can be argued that, even if available, these parities would not adequately reflect relative changes in the cost of higher education. The general price index is also no more than a convenient substitute for the 'accurate' price index for higher education, which should be computed on the basis of the price changes of its various components, including teachers' salaries, facilities, equipment and so on.

In our view, these reservations concerning statistical accuracy do not matter much provided researchers avoid two traditional pitfalls. The first consists in inferring too much from the data : in other words, no drastic conclusions should be drawn from a sudden change in one single statistical indicator ; on the contrary there should be an emphasis on consistency in trends eventually leading to the emergence of broad patterns and typologies. The second pitfall consists in refusing to accept any conclusions on the grounds that 'all the data are bound to be incorrect'. This attitude is commonly encountered among those who fear the uncomfortable findings which may result from an observation of home and foreign trends and who, consequently, back into personal prejudice.

However, both pitfalls can almost certainly be avoided with a minimum of restraint and goodwill. As this paper will attempt to demonstrate, there is something to learn from the data even with a 20% margin of error as a result of the statistical inadequacies mentioned above.

I - TRENDS IN HIGHER EDUCATION EXPENDITURE

Expenditure on higher education for 19 European countries over 10 to 12 years from 1965 is recorded in table I of the statistical annex, at the end of this section. On the basis of average growth rates per annum, computed in accordance with national currencies and current prices, it is possible to distinguish four categories of countries as follows :

Group A : 20% or above	:	Austria (20%), Italy (20%), Yugoslavia (22.5%) ;
Group B : between 15% and 20 %	:	Belgium (19.3%), Denmark (15.8%), Netherlands (17.2%), Norway (16.5%), Spain (15.8%)[3] ;
Group C : between 10% and 15%	:	France (12%), Federal Republic of Germany (10.1%), Sweden (13.9%), United Kingdom (11.8%), Bulgaria (10%) ;
Group D : below 10%	:	Switzerland (9.7%), Czechoslovakia (7.8%), German Democratic Republic (2.5%), Hungary (7.1%), Poland (9.7%) and Romania (4.4%).

Countries in groups A and B experienced an average growth in higher education expenditure of over 15% a year. Over a 10- to 12-year period, this meant a four- to fivefold increase in absolute values at least. It is worth noting that, whereas all Western European countries but one - Switzerland - belong to the first three groups, characterised by an annual rate of increase of 10% or more, most of the Eastern countries fall into group D with rates of increase of less than 10%.

In at least six countries, the rate of increase in higher education expenditure was clearly lower after 1975 than during the 1965-75 period, possibly as a result of the post-1973 economic crisis. However, in six others - three of which are in Eastern Europe - growth was clearly faster after 1975 than before[3]. In the remaining countries, data are sparse or inconclusive, although preliminary reports from national sources seem to

indicate that a majority of European countries no longer intend to be as generous towards their higher education systems as they were in the ten years prior to 1975.

When the higher education expenditure of each country is converted into one single currency unit (the US dollar) as in table II, it is possible to compute the total bill for European higher education (see table III). In the case of 1975, the last year for which data are available, total expenditure was estimated at US $ 16.3 billion. It doubled between 1965 and 1970, and then again between 1970 and 1975, at a growth rate of about 16% per annum. Some Western European countries had actually been experiencing rates of this magnitude since 1961. As noted earlier, higher education expenditure in Eastern Europe grew at a distinctly slower pace than in the West ; as a result, the former accounted for only 18% of total European expenditure in 1975 as against 25% in 1965. During the 1960s, the increase recorded in the United States was slightly lower than in Europe (14,2% as compared with 16%). But the gap between the two was still enormous in 1970 when the United States was spending three dollars on higher education for each dollar spent by European countries.

Part of the increase in higher education expenditure (recorded in table III) is due to inflation. In order to compute the 'real' increase, time trends in current prices were converted into constant prices on the basis of the price index for gross domestic product in the United States,

According to table IV, expenditure on higher education in Europe rose by a factor of 2.5 between 1965 and 1975, representing an increase of 9.6% per annum in real terms. For Western Europe alone, the annual rate of increase was 10.5% in real terms over the same period, and slightly higher during the late 1960s than the early 1970s. It should also be noted that the 10,5% growth rate recorded during the 1965-75 period does not match the 14.2% rate noted during the 1960s. The comparison between these two rates implies that growth in the early 1960s was faster than in the latter part of the decade so that, although apparently commendable over a long

period, the performance of Western Europe cannot conceal the fact that, in real terms, the rate of increase in expenditure on higher education fell constantly from the early 1960s up to 1975.

Table V suggests that this downward trend became more marked after 1975. Only three countries (Belgium, Norway and Yugoslavia) continue to record a significant growth in higher education expenditure with rates above 8%. In three others (Austria, the Netherlands and Sweden) the rates range from 0 to 5%, and the remaining countries for which data are available (France, Italy and Switzerland) have experienced a *decline* in expenditure which is not keeping pace with inflation.

A similar growth pattern can be observed in Eastern Europe, although the rates are lower than in the West (6.1% as against 10.5% throughout the same period). The rates of increase in expenditure on higher education were already below 5% during the years 1970-75 and, after 1975, only Bulgaria recorded consistently high rates (13.4%). In Czechoslovakia higher educational expenditure expressed in real terms fell by about 20% between 1975 and 1977.

The ranking of European countries according to the annual growth rates of their real terms expenditure on higher education (based on 1970 US $ over 10 to 12 years from 1965) is as follows :

Group A : above 15%	:	Austria (18.3%), Belgium (16.5%) ;
Group B : between 10% and 15%	:	Denmark (11.8%), Italy (11%), Netherlands (14.5%), Norway (13.2%) ;
Group C : between 5% and 10%	:	France (6.6%), Federal Republic of Germany (9.7%), Spain (10%), Sweden (9.9%), Switzerland (9.5%), Bulgaria (6%), Poland (5.7%) ;
Group D : between 0% and 5%	:	United Kingdom (3.1%), Yugoslavia (3.1%), Czechoslovakia (3.9%), German Democratic Republic (0%), Hungary (4.4%) and Romania (0.8%).

Countries with high inflation experience a significant positional downgrading in this ranking as compared with the earlier one based on the growth of higher education expenditure in current terms : for example, Yugoslavia and the United Kingdom, now rank joint 16th instead of 1st and 11th respectively. However, other nations such as France (moving from 10th to 11th) almost succeed in maintaining their positions, although nearly one-half of the annual increase in their expenditure on higher education was due to inflation. At the same time, countries with strong currencies such as Switzerland and the Federal Republic of Germany improve their positions[4)], while in one Eastern European State, Romania, expenditure in real terms remained virtually constant during the whole 12-year period.

The proportions of GNP allocated by European countries to expenditure on higher education give some idea of the increasing financial attention devoted to the sector in the years between 1965 and 1977. While, in 1961, no European nation was spending more than 0.4% of its GNP on higher education, by 1975-76, seven countries were spending 1% or over and four others (at 0.9%) were approaching the 1% mark. In Western Europe, the case of the Netherlands where, in 1975-76, 2.2% of GNP was devoted to higher education, is especially conspicuous. There is no doubt that this percentage, which is seven times higher than the 1961 figure and more than 2.5 times the corresponding level in an advanced country like Sweden, reflects the strong priority accorded to higher education by the Dutch education authorities. At the other extreme three countries in Southern Europe, France, Italy and Spain, were devoting at most 0.6% of their GNP to the sector, an appreciably lower proportion than the 0.9% minimum 'norm' observed in the North. In the case of France, this percentage (0.5%) had not changed in the preceding eleven years, indicating that expenditure was merely increasing at the same rate as GNP.

It is interesting to note that Eastern European countries performed rather well in this context, with four out of the five for which data are available reaching or exceeding 0.9%. This finding is not incompatible with

their above-mentioned record of relatively slow growth in absolute terms because, unlike the Western nations, they were already spending a relatively high proportion of their GNP on higher education in the mid-1960s. In other words, their starting point, expressed in terms of financial contribution, was more favourable than that of Western Europe but their expenditure did not increase dramatically (except in Bulgaria) during the period under consideration.

It is worth considering whether one can speak of priority treatment for higher education at the expense of other educational levels. Unfortunately, table VII, indicating the changing shares of each level in total education expenditure, does not point to a clear-cut answer. In four countries (the Netherlands, the German Democratic Republic, Hungary and Poland), higher education absorbed over one-fifth of the total education budget in 1976. However, since this was also the case in 1965, one can hardly speak of changing priorities among different levels except, perhaps, in the case of the Netherlands, where the relative increase in expenditure on higher education (28% of the total education budget in 1975 as against 21.5% in 1965) partly explains the country's record level of 2.2% of GNP devoted to the sector. A few other nations (Austria, Belgium, Italy, Norway, Poland and Czechoslovakia) experienced more modest corresponding shifts of resources, while in Denmark, France, Sweden and Yugoslavia the situation remained virtually unchanged. In all other countries, the share of higher education in the total education budget declined, sometimes markedly, as in the Federal Republic of Germany and Spain.

Irrespective of individual trends, shifts in resource allocation among educational levels hardly explain the enormous increases in resources devoted to higher education which occurred during the period under review. With few exceptions, these increases were part and parcel of the growing share of GNP earmarked throughout Europe for the educational sector as a whole.

II - EXPENDITURE PER STUDENT IN HIGHER EDUCATION

Expenditure on higher education has increased under the influence of two factors, namely the growth of the student population and improvements in the teaching and other facilities which each student is offered. In plain terms, this means that educational authorities are facing a basic dilemma of quantity versus quality. Favouring the former amounts to promoting 'mass but cheap' higher education while the latter implies 'restricted but expensive' higher education. Clearly, these positions are the two extremes of a continuum, and there may also be countries which can afford both quantity and quality.

One way of assessing changes in 'quality' in higher education is to compute trends in expenditure per student-year. Such trends, calculated on the basis of current prices, are shown in table VIII, according to which all European countries were able to allocate large increases in expenditure per student during the 1965-76 period. However, the table also indicates that differences between countries were still large, if not larger, at the end of this period than at the beginning. For example, expenditure per student in the Netherlands and Switzerland (the two biggest spenders at US $ 8,150 and US $ 7,110 respectively) was about 12 times greater than the corresponding expenditure in Spain (US $ 630). In Scandinavia (Norway and Sweden) the equivalent figures were four times as high as in Italy, and in Austria twice as high as in France.

At the same time, small countries like Austria and Belgium were able to improve their relative positions dramatically with respect to the others, ranking 7th and 6th in 1976, as against 14th and 13th in 1965. However, certain countries, such as the Federal Republic of Germany, experienced a relative decline, moving in this case from third position down to eighth in 1976. A similar observation applies to France which, in the same year, led a group of low-spenders (US $ 1,600 or less) including most of Southern Europe (Italy, Yugoslavia, Spain and Bulgaria) and also Poland. In fact, this group was so far below the remainder that one can speak of

a sharp distinction between countries with 'cheap' and those with 'expensive' higher education. Within Eastern Europe, the differences between small spenders like Bulgaria and Poland, and the more extravagant like Hungary and Czechoslovakia were too great to be attributable solely to exchange rate problems. They somehow reflect different policies towards spending on higher education. A part of the above-noted increase in expenditure per student is merely due to inflation, so that only trends computed on the basis of constant prices can give a reliable picture of the real progress achieved. These data, shown in table IX and summarised below, point to a far less optimistic view of European higher education than that so far suggested : they can relate to expenditure per student in 1965-77 (base 100 in constant prices, in 1965 unless otherwise indicated in table IX).

Over 200	:	Austria (300), Belgium (270), Netherlands (210), Norway (200) ;
Between 150 and 200	:	Denmark (150), Sweden (160), Switzerland (150) ;
Between 100 and 150	:	Italy (130), Spain (110), Yugoslavia (150), Bulgaria (140), Czechoslovakia (130), Hungary (140) ;
Around 100	:	France (101), Federal Republic of Germany (104), United Kingdom (104), Poland (104) ;
Between 50 and 100	:	German Democratic Republic (80), Romania (90).

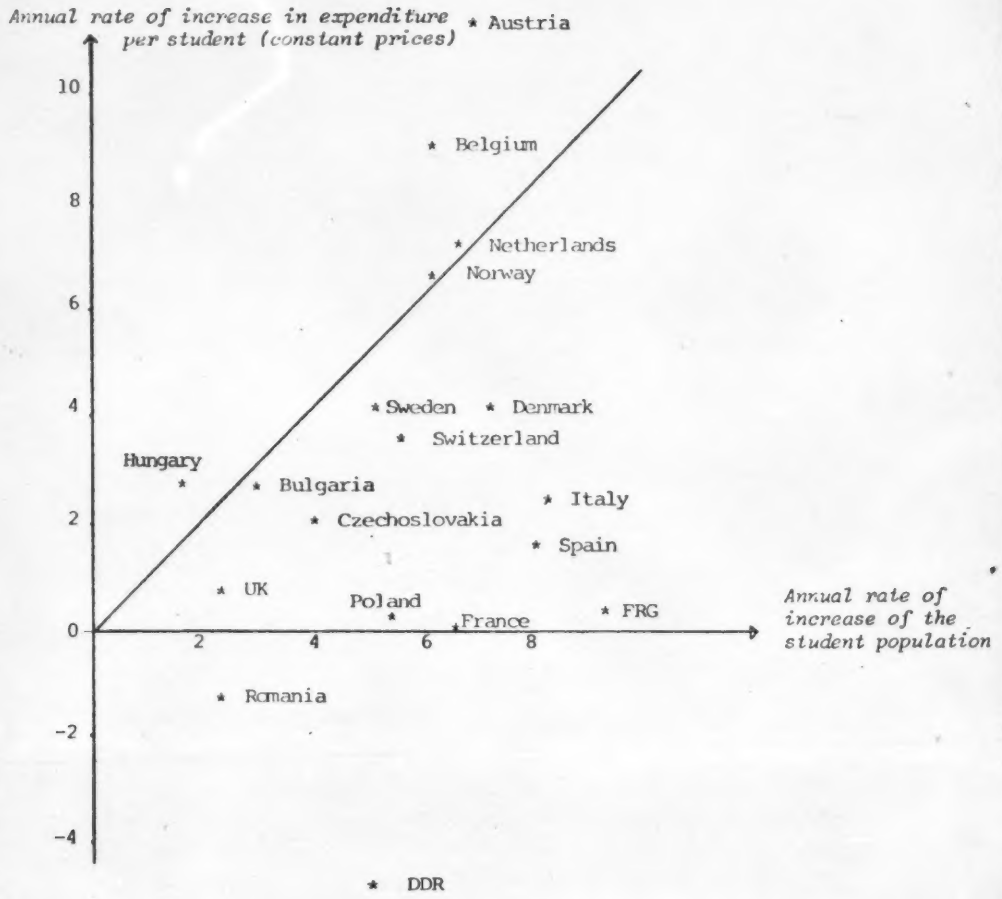
As this summary shows, three of the biggest nations in Western Europe (France, the Federal Republic of Germany and the United Kingdom) experienced no progress whatever as regards expenditure per student computed in real terms during the period under consideration : the same applies to Poland, the most populated country in Eastern Europe, while in the German Democratic Republic and Romania there was even a decline in expenditure per student recorded. In all these countries, therefore, the substantial increases noted earlier reflect either inflation or a growing student population : no 'qualitative' improvement (in so far as this is correctly assessed by rising expenditure per student) could be ascertained.

However, progress was substantial in the smaller countries of Northern and Central Europe (Benelux, Scandinavia, Switzerland and Austria). In Austria, higher educational expenditure per student trebled over an 11-year period, and at least doubled in Belgium, the Netherlands and Norway. Thus although neither Belgium nor Austria were among the top spenders in 1976 (because of their low 1965 ranking), they nevertheless succeeded in improving their positions dramatically. Meanwhile, a comparison between two adjacent countries, such as Belgium and France, reveals somewhat divergent trends : while sharing comparable ranking in 1965 and making negligible progress before 1970, Belgium succeeded in increasing its expenditure per student by a factor of 2.4, between 1970 and 1976, whereas in France the situation remained virtually unchanged.

From 1975 onwards, the impact of the economic crisis and of rising inflation was keenly felt by most European systems of higher education. Expenditure per student either stagnated or declined in 11 countries out of the 14 for which data are available. Only Norway and Yugoslavia continued to record modest increases, while uncertainty over the Spanish figures precludes any definite conclusion. In the meantime, Eastern Europe was as badly hit by inflation as the West - in fact sooner so - with expenditure per student declining from 1970 onwards in Czechoslovakia, the German Democratic Republic and Romania.

As mentioned earlier, the observable increase in total expenditure on higher education can be broken down into two components, namely, the increase in expenditure per student and the increase in the student population. The policy choice between the former, considered for the sake of argument as an indicator of quality, and the latter, which represents quantitative expansion, is illustrated in fig. 1. Countries above the diagonal bisecting line put a premium on qualitative improvement rather than quantitative expansion, while those below the line did the opposite. As can be seen, few were able to maintain a fair balance between quantity and quality : in an overwhelming majority of cases, qualitative improvement had to give way to quantitative expansion of the student population.

Fig. 1


Annual rate of increase in expenditure per student (constant prices)
Annual rate of increase of the student population
10
8
6
4
2
0
-2
-4
2
4
6
8
Austria
Belgium
Netherlands
Norway
Sweden
Denmark
Switzerland
Hungary
Bulgaria
Italy
Czechoslovakia
Spain
UK
Poland
France
FRG
Romania
DDR

III - FACTORS AFFECTING EXPENDITURE PER STUDENT IN HIGHER EDUCATION

a. Staffing policies

Teaching and administrative salaries account for 70 to 90% of total expenditure in higher education, the size of this wage bill depending, in turn, on student/teacher ratios, the use of teachers and the wage levels to which they are subject.

Available statistics on student/teacher ratios are indicated in table X. Two categories of countries become apparent on studying this table. The first includes eleven countries with student/teacher ratios equal or inferior to 11 ; the second comprises those with ratios of 17 or more, namely, France (24), Italy (24), Spain (17) and Yugoslavia (19). While good staffing, therefore, constitutes the norm in Northern and Eastern Europe, the syndrome of 'overcrowded' or understaffed higher education seems to prevail in the Mediterranean area.

The relative stability of most student/teacher ratios over a long period points to the importance of national traditions with regard to the organisation and staffing of universities. There was nevertheless a slight development for the better in France, despite a ratio which remained by far the least favourable throughout virtually the whole period[5)]. In Bulgaria, the student/teacher ratio dropped from 15 to 10 - a substantial achievement indeed - while in three other countries, Italy, Yugoslavia and Romania, the ratio worsened, with a quite dramatic increase in the first two cases. A rising ratio obviously reflects the inability or unwillingness of educational authorities to appoint new teachers to keep up with the increase in the student population, which is the clearest sign that quantitative expansion is taking precedence over quality.

Some countries could, conceivably, offset the adverse impact of high student/teacher ratios through fuller use of their teachers. More

frequent contacts between students and staff, higher teaching loads, and a closer relationship between university research and the content of lectures could all lead towards the more efficient use of a relatively small pool of teachers. Yet statistical information on the effective use of teaching staff in higher education, in terms of the number of hours' work involved, is incredibly scarce. In some countries, a university professorship is a full-time job requiring almost total dedication while, in others, it is a part-time activity often co-existing conveniently with a variety of remunerative occupations pursued elsewhere.

In spite of the lack of statistical evidence relating to full-time versus part-time activity among lecturers and professors it is doubtful whether the Mediterranean countries can compensate for understaffing, by making use of the former any more effectively than they are used elsewhere. On the contrary, casual observation seems to suggest that, in these countries, university teaching is often considered a part-time activity, in which case understaffing in higher education is likely to be aggravated throughout much of the Mediterranean region.

The use made of teachers is closely connected with the question of wages. In some ways, well-paid teaching staff in Northern Europe may be more inclined to consider their jobs as a full-time activity than their Mediterranean counterparts who, because of low pay, are used to resorting to other activities to complement their university salaries, a situation which seems to be most frequent where institutions of higher education are lax on administrative control.

Meanwhile, teachers' wage rates have an obvious impact on total expenditure on higher education. According to some analysts, the conspicuous Dutch contribution to higher education (with 2.2% of GNP allocated to the sector) can only be explained by the high salaries of Dutch university professors. A time-based comparison between the

Netherlands and the Federal Republic of Germany clearly illustrates the point, with further reference to table VIII indicating that, while expenditure per student in both countries was roughly the same in 1965, it was twice as high in the Netherlands ten years later. In the absence of any major divergences in student/teacher ratios or of any significant distortion due to exchange rates, one can but conclude that Dutch professors were more successful in maintaining their relatively high salary levels than their colleagues in West Germany.

It is perhaps only natural to enquire whether well-paid teachers are necessarily 'better' than the low-paid : whether Dutch professors, with a salary four times as high say, as the wage offered those performing similar functions in Italy, produce work of correspondingly superior quality. In many parts of Europe, teachers' salaries are closely linked to those of the civil service set by central or local government authorities : and national traditions and organisations, such as teachers' unions, do frequently interfere with market forces so that the relationship between salary and quality becomes blurred. Consequently, the high expenditure per student recorded in some countries may reflect certain privileges enjoyed by their university teachers just as much as the 'quality' of teaching. At the same time, however, market forces point to the almost universal European trend of an oversupply of teachers in relation to demand, a situation eventually likely to exert a downward pressure on relative wages.

b. Duration of study

To outsiders, expenditure per student is of less importance than expenditure per graduate and, in order to compute the latter, one has to know the number of years' study required prior to graduation. In spite of the obvious need for such data, few higher education systems have the statistical apparatus to provide it. For although simple quantitative models, depicting student flows and also providing this kind of information, have been used by planners at the primary and secondary

level of education for fifteen years, their application to the higher level is long overdue. Indeed, it is sometimes considered that this is impossible since higher education sub-divides more easily into terms or 'credits' than years, or because the duration of study varies according to subject or to the type of degree. However, while these factors may complicate the issue, they not infrequently seem to be invoked to counter reasonable enquiry into the internal efficiency of higher education systems, a tendency always likely to impede progress in analysing the costs or efficiency of the latter.

c. Research

In most systems of higher education, teaching and research are closely related, with research regarded as part of the normal output of universities[6)]. However, measurement of this output is fraught with problems and, even more important, tends to be resisted by those doing the research. Nonetheless, most people would concede that the latter is an important ingredient of good teaching and that, as such, its costs should be included in expenditure per student.

In practice, though, the question of research versus teaching cannot be separated from that of the use of teachers. The crucial element is *the way professors and lecturers organise their time* as between teaching and tutorials, the preparation of lectures, lecture-linked research, administration and so on. The feeling is very widespread that all these activities are - and should be - part of the daily round of academic staff, and that stricter accountability for responsibilities, perhaps in the form of a simple time-recording system, is virtually essential. In the absence of any more organised control, which many would doubtless regard as an intolerable form of bureaucratic encroachment on academic freedom, further understanding of efficiency in higher education systems is bound to be inhibited, with the result that analysts will, in ten years' time, be dealing in the same generalities as at present.

Notes and references

1) We are grateful to the Unesco Office of Statistics for making the data available for the purpose of the present study.

2) The only available study of this kind was written by Olav Magnussen and published under the title : 'The cost and finance of post-secondary education', in Towards Mass Higher Education, Conference on Future Structures of Post-Secondary Education (OECD, Paris, 1974). The present study draws on Magnussen's data for 1961 and extends his analyses up to 1975-77.

3) Since 1975, technicians' schools in Spain, previously attached to secondary education, have been included in the higher educational sector. This (justifiable) change in classification is responsible for the big jump in higher education expenditure recorded for 1976 in table I. Had the same classification been maintained, Spain would be in group C.

4) The relative positions of these two countries may be slightly over-estimated due to the mode of computation of the time series in constant prices. The use of the 1970 US dollar as a basis for international comparisons benefited them to the extent that their currencies were revalued against the dollar during the period under consideration.

5) In France, student/teacher ratios are based on the number of *postes budgétaires* which is inferior to the actual number of teachers. Nonetheless, alternative calculations based on crude estimates, yielded a student teacher ratio of 20, still a high figure by North European standards.

6) In France, most research spending is incurred by separate institutions like the *Centre National de la Recherche Scientifique*, and therefore excluded from university expenditure, a situation which tends to lower the country's comparative ranking in terms of expenditure per student.

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TABLES

(Part Two : Expenditure on Higher Education in Europe)

TABLE I. Trends in total expenditure* on higher education in current prices (millions of national currency)

	1961	1965	1970	1975	1976	1977
Western countries						
Austria (*schilling*)	—	845[a]	2486	5752	6472	—
Belgium[e] (*franc*)		3520[a]	7213[a]	22,192	24,862	29,305
Denmark (*krone*)	—	786	1713	3403	—	—
France[e] (*franc*)	—	2308	5194	6960	8058	—
Germany (FRG) (*D-mark*)	—	3001	5241	7874	—	—
Italy[e] (*lira*)	—	117,600[a]	240,000	739,500	878,500	—
Netherlands (*guilder*)	—	932	2162	4628	5337	—
Norway (*krone*)	—	309[a]	581[a]	1367	1651	—
Spain (*peseta*)	—	—	10,143	12,378[c]	24,524	—
Sweden[a] (*krona*)	—	640	1565	2363	2682	—
Switzerland (*franc*)	—	466[a]	652	1305	1288	—
United Kingdom (*pound*)	—	—	597	1046[c]	—	—
Yugoslavia (*dinar*)	—	580	1266	4459	5522	—
Eastern countries						
Bulgaria (*lev*)		43	67	94	103	135
Czechoslovakia (*koruna*)		1420	2411	4012	3386	3487
Germany (GDR) (*DDR-mark*)		—	1455[b]	1648[d]	—	—
Hungary (*forint*)		2259	3077	4285	4537	5129
Poland[a] (*zloti*)		5209	5123	12,808	15,060	15,733
Romania (*leu*)		1027	1346	1575[d]	—	—

* Capital and current expenditures unless otherwise indicated.

Source: UNESCO, Office of Statistics.

Notes: [a] current expenditure only.
[b] 1971; current expenditure only.
[c] 1974.
[d] 1974; current expenditure only.
[e] expenditure of the Ministry of Education only.

TABLE II. Trends in total expenditure* on higher education in current prices (US $ million at current exchange rates)

	1961	1965	1970	1975	1976	1977
Western countries						
Austria	—	32[a]	94	334	362	—
Belgium[e]	36	70[a]	144[a]	599	646	820
Denmark	26	114	228	592	—	—
France[e]	192	469	935	1629	1684	—
Germany (FRG)	348	750	1415	3204	—	—
Italy[e]	—	188	384	1131	1054	—
Netherlands	134	257	597	1833	2017	—
Norway	18	43[a]	81[a]	260	297	—
Spain	—	—	142	210[c]	368	—
Sweden[a]	35	122	302	569	617	—
Switzerland	—	107[a]	149	506	515	—
United Kingdom	—	—	1433	2322	—	—
Yugoslavia	—	122	101	259	304	—
Eastern countries						
Bulgaria	—	37	57	97	106	139
Czechoslovakia	—	197	335	672	567	584
Germany (GDR)	—	—	656[b]	895[d]	—	—
Hungary	—	192	261	506	535	605
Poland[a]	—	130	128	384	452	472
Romania	—	172	225	317[d]	—	—

* Capital and current expenditure unless otherwise indicated.

Sources:

1961: The cost and finance of post-secondary education, by Olav Magnussen, in: *Towards Mass Higher Education*, Conference on Future Structures of Post-Secondary Education (Paris, OECD, 1974).

All other years: UNESCO, Office of Statistics.

Notes: see Table I.

TABLE III. Expenditure on higher education in current prices (US $ million at current exchange rates)

				Annual growth rates (%)		
	1965	1970	1975	1965–70	1970–75	1961–70
Western Europe	2805	6005	13,448	16.5	17.5	16.8[a]
Eastern Europe	935	1662	2871	12.2	11.6	—
Total	3740	7667	16,319	15.5	16.3	—
USA	—	24,900	—	—	—	14.2

Source: Table II.

Expenditure on higher education for 1965 in Spain and in the German Democratic Republic was estimated at 18 and 20% respectively of total educational expenditure. In the United Kingdom an estimated US $577 million was spent on higher education in the same year.

For the United States and the 1961–70 column, the data are taken from Tables 1 and 3 in 'The cost and finance of post-secondary education' by Olav Magnussen in *Towards Mass Higher Education*, Conference on Future Structures of Post-Secondary Education (Paris, OECD, 1974).

Note: [a] this figure refers to eight Western European countries only, namely, Belgium, Denmark, France, the Federal Republic of Germany, the Netherlands, Norway, Sweden and the United Kingdom.

TABLE IV. Expenditure on higher education at constant prices
(1970 US $ million)

	1965	1970	1975	Annual growth rates 1965–70	1970–75	1961–70
Western Europe	3542	6005	9574	11.1	9.8	14.2[a]
Eastern Europe	1139	1662	2065	7.8	4.4	—
Total	4681	7667	11,739	10.4	8.9	—
USA	—	24,900	—	—	—	11.25

Sources: Table V and Olav Magnussen, *op. cit.*
Note: [a] same as in the preceding table.

TABLE V. Trends in total expenditure* on higher education in constant prices
(1970 US $ million†)

	1961	1965	1970	1975	1976	1977
Western countries						
Austria	—	39[a]	94	240	248	—
Belgium[c]	47	85[a]	144[a]	431	442	532
Denmark	34	139	228	426	—	—
France[c]	253	572	935	1172	1153	—
Germany (FRG)	458	915	1415	2305	—	—
Italy[c]	—	229	384	814	722	—
Netherlands	176	313	597	1318	1382	—
Norway	24	52[a]	81[a]	187	203	—
Spain	—	—	142	151	252	—
Sweden[a]	46	149	302	409	422	—
Switzerland	—	130[a]	149	364	353	—
United Kingdom	—	—	1433	1671[c]	—	—
Yugoslavia	—	149	101	186	208	—
Eastern countries						
Bulgaria	—	45	57	70	73	90
Czechoslovakia	—	240	335	483	388	379
Germany (GDR)	—	—	656[b]	644[d]	—	—
Hungary	—	234	261	364	366	393
Poland[a]	—	158	128	276	310	306
Romania	—	210	225	228[d]	—	—

* Capital and current expenditure unless otherwise indicated.
† The price index for Gross Domestic Product in the United States is taken fro m *National Accounts of the OECD Countries*, 1976, Vol. 1, p. 132.
Sources:
1961: The cost and finance of post-secondary education, by Olav Magnussen, in: *Towards Mass Higher Education*, Conference on Future Structures of Post-Secondary Education (Paris, OECD, 1974).
All other years: UNESCO, Office of Statistics.
Notes: see Table I.

TABLE VI. Percentage of GNP* allocated to expenditure† on higher education

	1961	1965	1970	1975	1976	1977
Western countries						
Austria		0.4[a]	0.7	0.9	0.9	—
Belgium[e]	0.2	0.4[a]	0.6[a]	1.0	0.9	1.0
Denmark	0.3	1.1	1.3	1.7	—	—
France[e]	0.2	0.5	0.6	0.5	0.5	—
Germany (FRG)	0.4	0.7	0.8	0.8	—	—
Italy[e]	—	0.3	0.4	0.7	0.6	—
Netherlands	0.3	1.3	1.9	2.2	2.2	—
Norway	0.3	0.6[a]	0.7[a]	0.9	1.0	—
Spain	—	—	0.4	0.2[c]	0.4	—
Sweden[a]	0.3	0.6	0.9	0.8	0.8	—
Switzerland	—	0.8[a]	0.7	0.9	0.9	—
United Kingdom	—	—	1.1	1.2[c]	—	—
Yugoslavia	—	0.7	0.7	0.8	0.9	—
Eastern countries						
Bulgaria	—	0.6	0.6	0.7	0.7	0.9
Czechoslovakia	—	0.8	0.8	1.0	0.8	0.8
Germany (GDR)	—	—	1.2[b]	1.2[d]	—	—
Hungary	—	1.3	1.1	1.1	1.0	1.1
Poland[a]	—	1.0	0.7	0.9	0.9	0.9
Romania	—	—	—	—	—	—

* For Eastern countries, net material product.
† Current and capital expenditure unless otherwise indicated.
Source: see Table II.
Notes: see Table I.

TABLE VII. Percentage of total education expenditure* allocated to higher education

	1961	1965	1970	1975	1976	1977
Western countries						
Austria	—	12.2[a]	14.3	15.4	15.7	—
Belgium[e]		10.8[a]	13.3[a]	15.4	15.1	15.7
Denmark	—	19.5	21.0	20.3	—	—
France[e]	—	14.0	18.0	13.6	13.7	—
Germany (FRG)	—	22.1	22.3	14.8	—	—
Italy[e]	—	7.6[a]	9.6	13.0	12.0	—
Netherlands	—	21.5	24.4	27.4	28.0	—
Norway	—	11.6[a]	12.2[a]	13.1	12.8	—
Spain	—	—	19.1	14.9[c]	15.9	—
Sweden[a]	—	12.2	14.5	12.3	11.9	—
Switzerland	—	18.5[a]	17.5	17.7	16.8	—
United Kingdom	—	—	22.6	19.0[c]	—	—
Yugoslavia	—	16.0	15.1	15.4	15.8	—
Eastern countries						
Bulgaria	—	14.5	13.0	11.9	12.6	15.0
Czechoslovakia	—	15.4	17.7	21.0	17.9	17.4
Germany (GDR)	—	—	22.8[b]	21.0[d]	—	—
Hungary	—	24.9	25.2	22.2	22.6	22.8
Poland[a]	—	23.5	18.0	25.4	26.8	26.6
Romania[a]	—	15.7	14.6	13.4[d]	—	—

*Capital and current expenditure unless otherwise indicated.
Source: UNESCO, Office of Statistics.
Notes: see Table I.

TABLE VIII. Total expenditure per student-year in higher education
(US $ in current prices)

	1961	1965	1970	1975	1976	1977
Western countries						
Austria	—	640	1500	3400	3440	—
Belgium	—	830	1130	3790	3930	—
Denmark	—	2370	3290	6150	—	—
France		890	1150	1600	1610	—
Germany (FRG)		2180	2600	3830	—	
Italy		440	540	1150	1030	
Netherlands		2140	3360	7920	8150	—
Norway		1170	1550	3700	4190	—
Spain		—	390	380	630	—
Sweden		1570	1990	4200	4440	—
Switzerland		2650	2900	7820	7110	—
United Kingdom	—	—	3140	4510	—	
Yugoslavia		—	550	1070	1180	—
Eastern countries						
Bulgaria	—	370	570	750	820	970
Czechoslovakia	—	1360	2560	4330	3360	3260
Germany (GDR)	—	—	2160	2320	—	—
Hungary	—	2040	3240	4700	4840	—
Poland		380	320	670	740	760
Romania	—	1320	1480	1930	—	—

Source: Table II for total expenditure on higher education. Data on enrolments in higher education are from OECD for Western countries and from UNESCO for Eastern countries.

TABLE IX. Total expenditure per student-year in higher education
(1970 US $)

	1961	1965	1970	1975	1976	1977
Western countries						
Austria	—	780	1500	2440	2360	—
Belgium	—	1010	1130	2720	2690	—
Denmark	—	2890	3290	4430	—	—
France	—	1090	1150	1150	1100	—
Germany (FRG)	—	2650	2600	2760	—	—
Italy	—	540	540	830	700	—
Netherlands	—	2610	3360	5700	5580	—
Norway	—	1420	1550	2660	2860	—
Spain	—	—	390	280	430	—
Sweden	—	1910	1990	3020	3030	—
Switzerland	—	3220	2900	5630	4880	—
United Kingdom	—	—	3140	3250	—	—
Yugoslavia	—	—	550	770	810	—
Eastern countries						
Bulgaria	—	450	570	540	560	630
Czechoslovakia	—	1660	2560	3110	2300	2110
Germany (GDR)	—	—	2160	1670	—	—
Hungary	—	2490	3240	3380	3310	3420
Poland	—	470	320	480	510	490
Romania	—	1610	1480	1380	—	—

Source: Table V for total expenditure on higher education. Data on enrolments in higher education are from OECD for Western countries and from UNESCO for Eastern countries.

TABLE X. Trends in student/teacher ratios

	1961	1965	1970	1975	1976	1977
Western countries						
Austria	—	11	9	8[a]	—	—
Belgium	—	—	—	—	—	—
Denmark	—	—	8[b]	—	—	—
France	—	28	26	24	24	24
Germany (FRG)	—	11[c]	8[d]	8	—	—
Italy	—	16	16	23	24	24
Netherlands[f]	—	—	9	—	—	—
Norway	—	10	10	10	11	—
Spain	—	17	13[b]	18	17	—
Sweden	—	—	—	—	—	—
Switzerland[f]	—	14	11	10	—	—
United Kingdom	—	—	—	—	—	—
Yugoslavia	—	12	16	17[e]	19	—
Eastern countries						
Bulgaria	—	15	13	11	9	10
Czechoslovakia	—	8	8	7	8	—
Germany (GDR)	—	—	11	11	11	—
Hungary	—	11	8	9	9	—
Poland[f]	—	11	10	9	—	—
Romania	—	10	11	12	13	13

Source: UNESCO, Office of Statistics.

Notes: [a] 1974.
[b] 1971.
[c] 1966.
[d] 1972.
[e] 1973.
[f] universities only.

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